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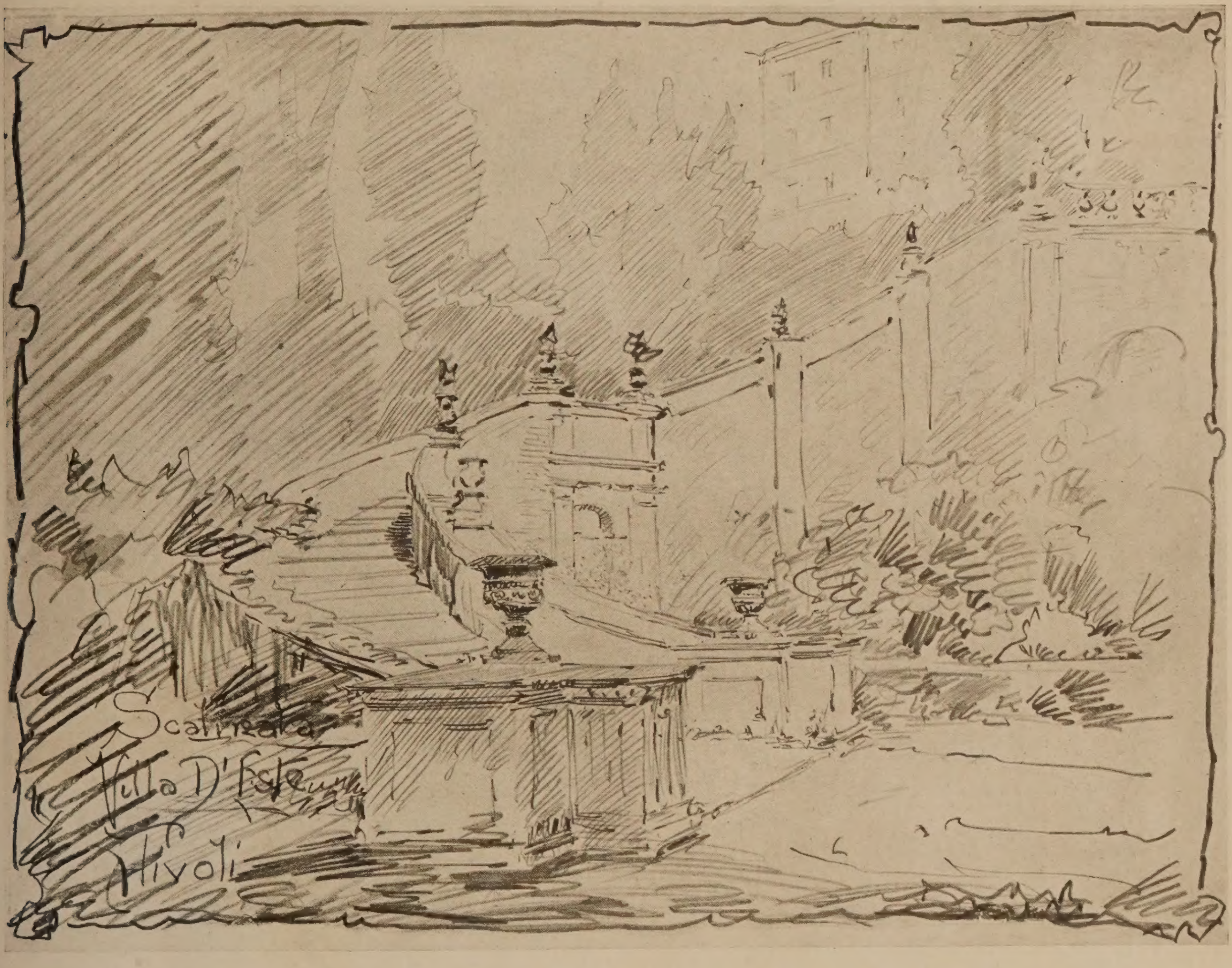


Gardens—Large and Small

By Katharine Cotheal Budd

"GREEN leaves, flowers, sweet scents, songs of birds, one fruit after another," formed the ideal garden of the great prose writer of the Renaissance, Leo Battista Alberti, "Always gracious, faithful and true. If you govern her wisely and well, she will never fail to satisfy you, but will always add gift to gift."

In warm countries like Italy, fruits and flowers of the best sorts grow wild and are not thought "worth the cost of enclosing." Italians value largeness of extent, which gives greater play and openness of air, shade of trees, murmuring streams and fountains, lovely views—all that looks fresh and cool, like balustrades and statues.

Classic gardens depended on clever disposition of parts, on symmetry, etc., never on flowers alone, for their remarkable architectural effects. Pliny's was "divided by box hedge, cut into a thousand forms, with letters expressing the master's name, and little obelisks, . . . elegant regularity and agreeable gloominess."

The stiffness of laurel, myrtle and cypress suited the topiary work which they used lavishly in their "verdant architecture."

They originated the quinquncal lozenge for the planting of groves, a form that repeated so that the eye could follow parallel alleys in any direction.

Detail of a formal garden on Long Island.

The Romans loved fresh air, one-eighth part of Rome was laid out in park space. Even the poorest had a garden, or at least a window garden, besides. (London has but one-thirty-ninth part reserved for public parks.) The rose, their favorite flower, was used lavishly for their entertainments, for garlands at banquets, and other decorations.

From earliest times, ornamental bodies of water have been introduced into gardens in every possible way, fountains of rich design, water theatres, lakelets, dripping softly with glinting reflections, most pleasing on a hot day. Italians seldom cared for the trick fountains to be found in England, where the touch of a hidden button drenches the bystanders.

The Italians valued beautiful views and framed with overhanging trees mountains misty in the distance, or picturesque towers and domes. It is difficult to find a garden without fountains, canals or a lovely glimpse of lake or river. The formality of the "giardino segreto" near the house with its balustrades, statues and urns, walks stiffly bordered by box and clipped hedges, melted by degrees into the natural growth and woods beyond. One of the earliest of these gardens is vividly described in an old romance, printed in 1499: "Hypernotomachia," where Polyphilus and his beloved are led through an enchanted garden. The wood-cuts picture the elaborate landscape architecture, the groves and labyrinths, pergolas and temples, reflected in shining streams, the sunken gardens and fountains with statues interspersed between, a veritable Paradise.

Old paintings are full of exquisite glimpses of landscape and garden, the environment of the men and women of the period. The "Dance of Death" in the Campo Santo of Pisa, Fra Angelico's lovely saints in San Marco, Botticelli's fairy visions, and countless others, repay examination. Dante describes the "gente vana" of Siena during his first year of exile there: "The round of pleasures such as nowhere else is found," the gay life out-of-doors "radiant with delicate living in courtly circles."

In 1485, Lorenzo de' Medici employed Guiliano di San Gallo to build him a country house at Poggio à Caino, half way between Florence and Pistoia on the banks of the Ombrone. Vast gardens were laid out on the ground sloping to the river, with fruit trees, woods stocked with peacocks and game, and mulberries planted to encourage the silk trade. Alas, before long the Ombrone rose in flood, swept away the strong dykes, the islet and most of the rare trees and shrubs. Lorenzo philosophically consoled himself by writing an ode on Ambra, loveliest of Caino's nymphs, who represented his lost garden fleeing from the embraces of the river-god Ombrone, and being turned into a rock by the goddess Diana. The shattered remnants of these gardens prove their magnificence. The double flight of stairs in the villa, and the vaulted hall which Vasari called the "loftiest he had ever seen" still remain, together with Del Sarto's frescoes commemorating the gifts of the Sultan of Babylon, parrots, apes, and other strange animals. The giraffe kept at Poggio à Caino, excited intense interest throughout the country. It made the tour of the convents to gratify the curiosity of the nuns, and was much lamented when it died the following cold winter. All these beasts are found, carved on fountains, painted or in relief on walls of different

The wonderful sky line of a Florentine garden.

villas of this period, in grotesque contrast to the lovely statues around them.

Records still show how the great folk of this day spent their leisure hours in games and other amusements. Great amphitheatres for races and pageants, similar to those of the Boboli gardens and the Villa Borghesi, and smaller theatres suitable for operettas and comedies, are cunningly devised in greenery, with statues, urns full of flowers and fountains in endless variety.

The massing of Rhododendrons.

The Villa Gori has little grasswork and few flowers; a fantastic casino faces a graveled plateau walled with ilex cut into strange shapes, with arches marking the entrances to long pleached alleys. One of these leads to a thicket, a mess of bushes like a maze, where years ago, "hunters," provided with trained thrushes and silver whistles, lured and slew thousands of songsters. The other alley, leading off at right angles, ends in an enchanting theatre, oval, unlike all other outdoor theatres. A lofty old cypress on the axis of this theatre must have governed the location of the stage. A high hedge which cuts off the adjoining olive groves has been kept square and true by many years of careful pruning. Tall green "flies" make practicable exits. The low stone wall which curves gracefully around the grassy stage, divides it from the parterre and sweeps around to the alley, leaving a narrow path next the hedge. The miniature parterre is curiously laid out with tiny, mossy beds and pebbly walks. The whole measures about nineteen by thirteen yards, a perfect size for intimate performances. Some of the large gardens in America have similar theatres for amateur theatricals; a stage might be included even in one of modest size. In measuring up these green theatres in Italy, I have found no two exactly alike. All are ingeniously connected with the main house by clipped hedges, by winding beds of flowers, by balustrades topped with urns and statues, and other clever devices. Sometimes a wide gravel space in the rear of the house is utilized for spectators, the theatre opening off at one side, giving a chance for plenty of seats indoors at the windows.

Cypress, pine, box and other evergreens form a fine foil for the brighter greens of summer, and are invaluable in winter when all else is bare. The hills of Tuscany are topped by groups of such trees, growing up into the skyline, half concealing the convent or villa nestling among them. Tourists who dash through on wheels miss half the beauty of these lovely gardens. Only the hardy pedestrian with time to explore can find the little foot-paths running through fields far back from the dusty highway. Italian peasants, surely the most courteous in the world, gladly direct wayfarers to interesting spots. An owner who has several palaces and many villas must neglect a few of them. Even the guidebooks forget, or give barely a line to half-ruined villas.

The incomparable site of the Villa Madama was selected for the pope by Raphael himself and the preliminary drawings made by his own hand. We can see them still in the Uffizi. But before they were entirely executed, Raphael died, and no one could carry them on as he intended. The scheme was grand: first, near the house, a square garden with pergolas across the façade and flower beds near the broad stairway that led to the second, round, garden, with its loggie and clumps of cypress. Still lower in the valley, was the third, a great circus with an oval pond in the center and plenty of space around for bullfights and races. Isabella d'Este was almost the last person to see this villa in its glory, before it was partly

Romantic effect in the Henry C. Phipps garden.

destroyed by the German hordes who poured down the Flaminian Way from the far North. A great festa was given for her in the Villa Madama in May, 1527. Supper was served from the pope's own gold plate. His private musicians played during her three hour's visit. One of her letters, still preserved in the archives says, "The place is delicious and enjoyable, site the finest in the world." The superb antique statues pleased the Marchesa mightily. She tried in vain to wheedle the pope into giving her the colossal torso of Jove on which her heart was set. For Isabella adored her own gardens and never lost a chance to secure rare plants and curios for them. Her absent friends received constant letters requesting them "to bring something for the grotta."

Hundred-year-old Holly and twenty-year-old shrubbery transplanted for Ferrucio Vitale's garden plan.

In the closing years of the sixteenth century another memorable entertainment was given in the Villa Madama by Cardinal Farnese, when a brilliant company of princes and ecclesiastics enjoyed the first performance of "Il Pastor Fidele" on the greensward. Long ago the antique statues vanished, those on the grounds are fast dropping to pieces, exposing the iron supports which hold their legs. But three centuries of neglect cannot make the gardens ugly, for flowers cover every crumbling wall, growing in wild profusion up to the very doors.

Many of the famous old Venetian gardens are still kept in order, others have disappeared with the passing of the years. We can hardly trace the walls of the beautiful terrace where Titian entertained the writers and painters of that glorious age, where balmy breezes from Murano swept over groves of orange and citron, where fountains sparkled and beds of damask roses, musk, narcissus, violets, sweet-smelling mint, lavender and rosemary, perfumed the air with fragrance during the long summer evenings when they sat at supper under the pergola.

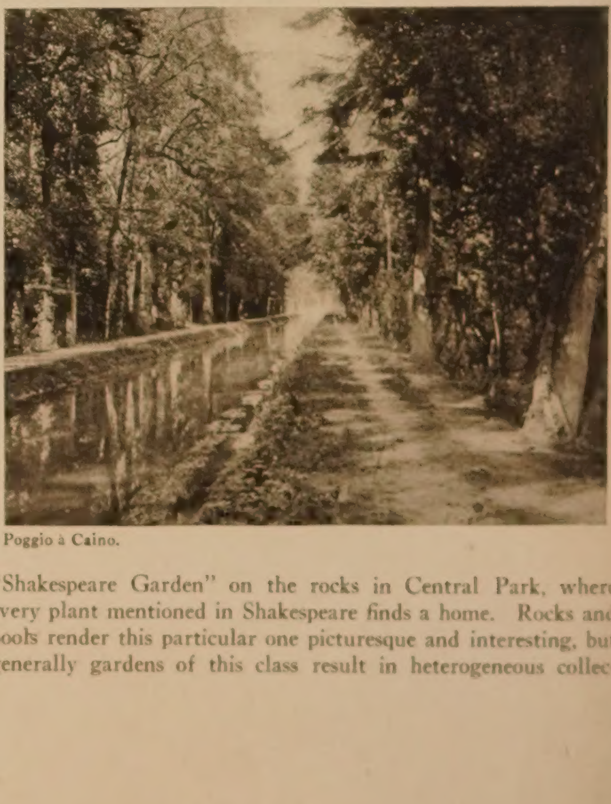
The first written record of a garden in England comes down from the foster brother of Richard Coeur de Lion, the Abbot of Cirencester in the twelfth century, who considered it a "sweet place for reclining to those who are overheated." The peaceful pleasures of gardening were known to few in those troublous times. During the Dark Ages the only persons who kept up the tradition were the monks. But as times grew brighter, people ventured from the shelter of city walls. Soon many had plots, well laid out and cultivated. Before long, greens for various sports were placed in them. We find an archery court at Haddon Hall which was flooded in winter for skating. Bowling greens were common, sometimes with a charming garden house near from which ladies might view the games in comfort. Mazes existed at a very early age. Some of the designs are very puzzling to trace even on paper and must have given endless amusement to the happy-hearted visitors who tried to reach the goal. The old romances are full of allusions to the Maze and the playful happenings therein. We read, too, of terrible things like the death of Fair Rosamond who was murdered in a maze. "Mazes are not for commoditie in a garden, but rather that he who so listeth may place one of them in a void space . . . for the only purpose to sport in at times."

Pleached alleys are rarely found now in England. The word pleached comes from the French "plessir" to weave, from the way the branches are interwoven. One of wych elm at Brayton House, forty yards long, has gnarled stems twisted together into a dense mass. These romantic old walks have charming names, like the famous one at Hampton Court, "Queen Mary's Bower." The hornbeam hedge at Hampton Court is over half a mile long. At Hatfield the well known lime walk is still flourishing.

The rich green velvet of yew is preferable for topiary work, but as it is a slow grower, privet, rosemary, box, etc., are often used instead. The peacock, of course, is always the favorite device, but all kinds of animals, and even Biblical subjects such as the "Twelve Apostles" and the "Sermon on the Mount" may be found, with twigs and branches carefully bent and tied, and leaves trimmed into perfect formality.

Nuns in old convents and other pious folk plant "Saints' Gardens" with a succession of flowers supposed to blossom on saints' day, a pretty fancy and probably as successful as other special gardens which are started from time. For instance, the usual color garden of white or blue, in which great patches of red or yellow, or even the hated magenta, are apt to crop out at the height of the season. Arranging planting so that the beds always have enough of interest, keeping some flowers back and pushing others ahead so that all do not bloom together and leave the bare earth later, requires more skill than most amateurs possess.

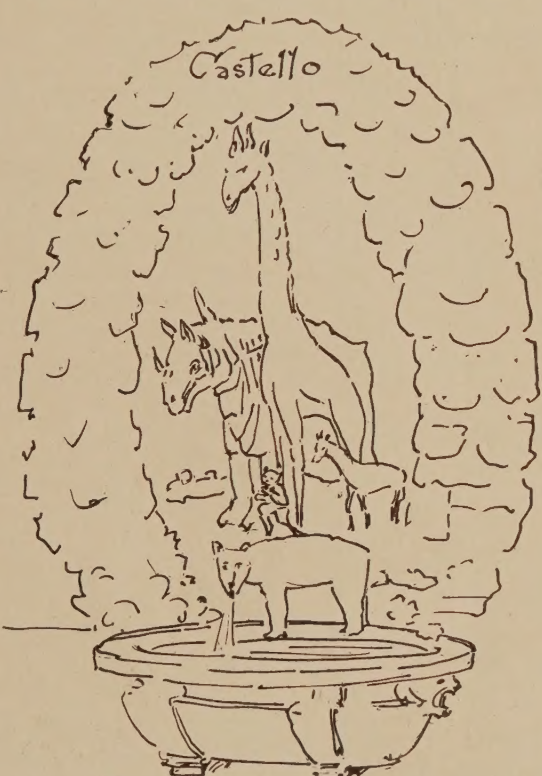
Another idea is a poet garden, like the much discussed "Shakespeare Garden" on the rocks in Central Park, where every plant mentioned in Shakespeare finds a home. Rocks and pools render this particular one picturesque and interesting, but generally gardens of this class result in heterogeneous collec-


Poggio à Caino.

tions of scrawny plants from differing localities, with a few insignificant flowers to give color.

Each year more attention is given to instruction, especially in cities where none have gardens to experiment on. The "Park of a Thousand Gardens" in the Italian quarter of New York is a fair example of such attempts. An army of youngsters work busily all summer under expert instruction, raising real crops which they are privileged to take home to their appreciative families. Now that lack of farm help is felt in this country, let us hope that many of the boys and girls who have graduated from these experimental gardens will seek employment where they are asked for, in the great market gardens and on the farms. Little attention has been paid to ornamental gardening for the poor, but their flourishing window boxes and pots of geraniums prove their unquenchable love for flowers. The waste lots in and near cities should be allotted to such people. Outside the walls of Paris, tracts are divided into small plots which are cultivated by whole families who spend their spare time there, eating under arbors, returning at night to their homes.

Few think of the boon a garden may be to older people. Genial Joseph Jefferson advised everyone to take up a new fad every third year, and, especially in middle life, to devote one's self to gardening, a fad where eager anticipation and outdoor life combined, ward off old age. It is a mistake for the "adult to give up sports and games and the nimble wit which repartee engenders" to "settle and stiffen and indulge in reminuisances." By all means let us garden "in order to get more new-fashioned as we grow older." For gardening is a healthful pastime, the only sport where one may "begin, leave off, and resume" at any moment. The fountain in the garden should be a "Fountain of Youth" to remind us that outdoor life is the natural one, the best preservative of health and beauty.



Decorazione rustica della Grotta—

Study of the old gardens inspires us to improve our own. Four points are to be considered when we begin to plan and plant. First, the general layout; second, the shapes, sizes, and color of the trees, etc.; third, the amount of care we can give to keep it in order, and fourth, the time each plant will last in sightly condition during the season. In planning, Olmstead's maxim was "take care of the corners first, the rest will take care of itself."

The style of the buildings should be considered and the planting adapted to harmonize with the exterior. Let all planting beautify the house. At the same time see that the views from the windows of the main living rooms include the best portions of the landscape. Our houses were wont to face on the street; now we leave that for the service portion and open our best windows on the gardens. Imagine how roads and approaches will come into the design; see that the turns for motors, etc., also the grades, are easy. Keep the piazzas private, away from the driveways. If a house is isolated and on a hill, the shape of the planting should be studied, the way the trees, etc., cut into the skyline. Shape in planting comes before color.

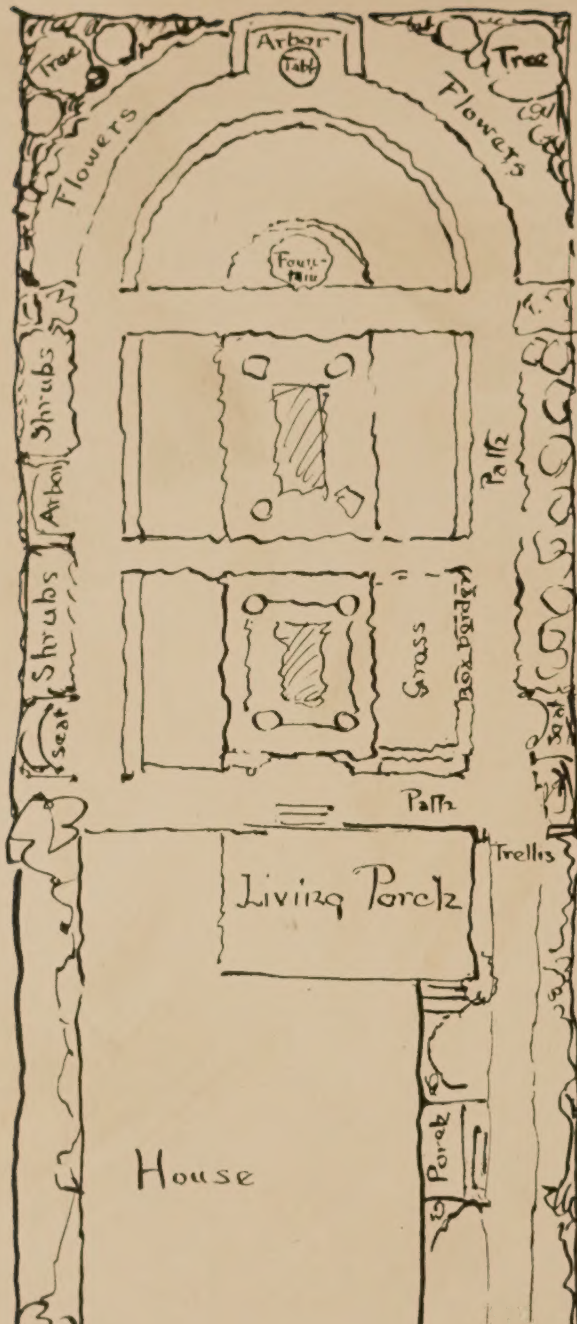
One needs faith to see what the result will be after a few years of growth. Few of us have patience to wait for time to mellow our crude beginnings. Of course, it was an American who asked the old man who was cutting the velvety grass at Oxford: "How long it took to make a lawn like that?" "Six 'undred years, miss," was the respectful response. Fortunately our nurserymen are ready to furnish matured trees for those who cannot wait. The landscape architect can reckon on setting out whole avenues of large trees, hedges with arches in them, all kinds of shaped box and other bushes, etc, as their powerful machinery transports and resets them in perfect safety. The palatial grounds surrounding great residences of this country compare well with those of chateaux centuries old.

The garden most in demand is the one the owner may make for himself, with the aid of not more than one gardener, perhaps with only an occasional helper to do the heaviest work. In the beginning, it is wise to seek skilled advice for the general scheme, and pay for plans showing the whole. Then, little by little, it may be developed. An error in design, which may be easily rectified by the wealthy man, is serious in the small garden where there is no money for changes.

Much time is wasted in laying out elaborate flower gardens—the best of the old work is really simple. An effort should be made to select plants to be found growing wild in the neighborhood, which are suited to the climate. Enrichment and intelligent care work wonders—the rose mallow makes gorgeous hedges, the Joe Pye weed masses into splendid backgrounds. Abroad, our mullen is admired as the "American velvet plant;" our rhubarb in public parks is surrounded by crowds who admire its almost tropical foliage; our "butterfly weed" makes vivid orange patches in Italian beds. And why not cultivate some of the handsome vegetables? Okra is quite as decorative as the hollyhock; scarlet beans may be used to adorn trellises; various low plants like lettuce, parsley, etc., make fresh green borders, or may be planted with gay flowers in the window boxes.

Keep straight paths and formal effects near the house. Use the ogee curve in grading wherever possible. We were taught to believe that Praxiteles owned this curve. But look—it is the curve of life—stiff straight lines seem dead beside it. Let your planting die easily into the woodlands and wild growths near you, if you are fortunate enough to have such surroundings.

Plant shrubbery about the base of buildings and along walls to hide the hard line and anchor all to the soil. A rude but truthful expert told an amateur who asked him for advice: "Go home and put petticoats on your house." She realized for the first time that her house needed clothes as much as she did. No one enjoys the "barefooted" look of a new building, the angle at the base devoid of verdure. Many archi-



Plot plan.

tectural defects may be hidden gracefully, and all the beauties of a house enhanced by judicious planting. Generous greenery around a house in winter is a welcome sight.

Years of serious study and practical experience as well as great artistic ability are required in the practice of landscape architecture. The influence of those now engaged has a country-wide effect. Future generations will surely bless them as we thank the men who planted the trees which shade us now.

Distinguished visitors to a garden should be persuaded to plant trees in memory of their stay. Mr. Carnegie, with his usual thoroughness, has a supply of young trees always awaiting the honored guest at Skibo Castle. They are in tubs sunk to grade, easy to reach even if there is but a moment for the ceremony of transplanting. A souvenir tree should be petted and stimulated into rapid growth. Trees are alive and apparently know when folks wish them well. Most people think that trees should be planted "a long time ago" to give satisfaction. They have faith only when "the stripling plants the sapling," but five or ten years of loving care will work miracles. Treat your trees as friends when alive and when they are "down and dead" have them for your hearth fire.

Flowers planted for fragrance endure much ill treatment. The old perfume factory, begun at Fontenay-aux-Roses under Louis XIV, has still old roses, great vines and bushes which perfume the air each June.

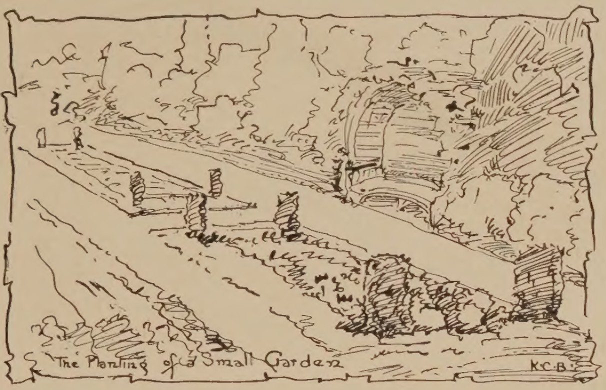
Bird-life is essential to the well-being of a garden, we love thrushes warbling from the top of the trees, fat bold robins dotting the lawns, every gay little songster. To have them, one must wage war on stray cats, the wild marauders who kill like tigers.

Life in the country is becoming daily more convenient now that roads are well kept and travel by automobile practicable. Families can leave the turmoil of the city and live in peace miles away without feeling shut out from theatres and other attractions. Each year vacations are longer and all festivals kept at the country home. In this way the garden can be carefully cherished all the year.

If you intend to pass your time within your garden walls, furnish it as you do your house. Do not invest in "rustic" benches which need constant renewal. Use concrete. If you can afford fine marbles, by all means get them. But have plenty of simple graceful seats ready for any gathering, with benches in romantic nooks, and tables and fountains of good design. The pleasant gray of the cement will soon stain and harmonize with the greens and browns around.

The word "garden" was, in old English "garth" meaning yard or enclosure. When we remove our fences we do away with the real meaning of the word, with all privacy, with half the pleasure of a garden. Most fences are ugly? Granted. The small garden needs protection, and a certain feeling of privacy, of ownership, which is lost when all fences are removed, and the precious plants are exposed to risks from neighbors' children and dogs. Fortunately a modern substitute can be found in chicken wire, which forms an unseen protection behind bushes, and retires modestly from sight even while guarding the flowers. Unless the garden is strictly formal the wire is better than a hedge because the planting back of it may be irregular and feathery. Let the rich man do without if he chooses, but encourage some protection, some privacy for the small garden.

Many would-be gardeners are like children who sow seeds, watch them grow with pleasure, yet never become gardeners in the best sense. So-called landscape gardeners often fall far short. A capital story is told of an old florist who stopped before the institution where prizes for village improvement were being distributed, looked at the long grassy slope along the front and exclaimed: "Say the word 'n I'll set out the len'th of that strip in foliage plants, spellin' the name 'People's Hinstitute.'" Nurserymen and florsists are among the worst offenders on the main lines of railroad travel, placing hideous signboards which spoil lovely meadows and picturesque rocks. The art societies are taking up this question with the idea of inducing people to patronize others in ordering trees, etc. If public-spirited individuals would send written protests to such offenders, this nuisance would soon be abated. A beautiful sign designed in clipped shrubbery may be very appropriate, but common painted billboards are most objectionable.


The Planting of a Small Garden
K.C.B.

Never regard your garden as final, for it never is finished. You can correct your mistakes as you discover them. Move your things about if they do not suit you. It rarely hurts trees and shrubs to transplant them carefully. Thank Heaven that the pleasures of anticipation are yours, that the future is before you in which to develop and correct.

Read, read, read. "Let both your ears have good appetites —for garden lore." Get everything on gardens, from tales of the Renaissance to the latest facts about village prize contests. Buy standard works to which you may refer when in doubt. Have fun with pencil and paper and the seed catalogues. Visit the nurseries. Join the local club. Avail yourself of all modern implements for the care of your garden. And develop an expression of your personality that will bring nearer the day when we shall have foreigners coming here to see "The American Garden."

Offices, Bonbright and Company, Inc. Equitable Building, New York City

(PLATES CIV-CV-CVI)

IN meeting the requirements of Bonbright and Company, Inc., for their new quarters, the results obtained are unusually complete and satisfactory, the essential problem being to design offices dignified and impressive with every facility for the twelve partners comprising this large corporation, their secretaries and clientele, and still dissimilar to a commercial bank. A. F. Gilbert is the architect.

Irregular spacing of structural columns and irregular angles made this a difficult problem that has been happily overcome by the architect. The entrance, considered one of the most attractive in the building, is of marble surmounted by a clock of carved marble. To the right of the public space is the office of the President and the offices of several of the partners, all private, being divided by metal and glass, but communicating. The desk for the secretary of each member of the firm is placed in front of his office and separated from the public space by a perforated marble rail. On the left are two offices of members of the firm, bond sales department, conference rooms and telephones. Access to the public space is also had through the arcade of the building. A mezzanine floor extends over a portion of the area providing space for clerical force, conference room and telephone operators. The offices throughout are provided with cork floors with marble borders and metal wainscoting finished in imitation mahogany. The design of the interior is pure Greek. Massive Botticino marble columns gracefully support an unusually beautiful ceiling, an exact replica of the ceiling in the Grecian Temple of Nemesis. A most pleasing effect is obtained throughout by the absolute harmony in the blending of design and color of the honed finished Botticino marble, Cænstone walls and delicate old ivory ceiling. A successful system of illumination has been obtained producing a perfect daylight illumination, doing away with desk lamps and eliminating shadows on the ceiling.

Studio for Delano & Aldrich 126 East 38th Street, New York City

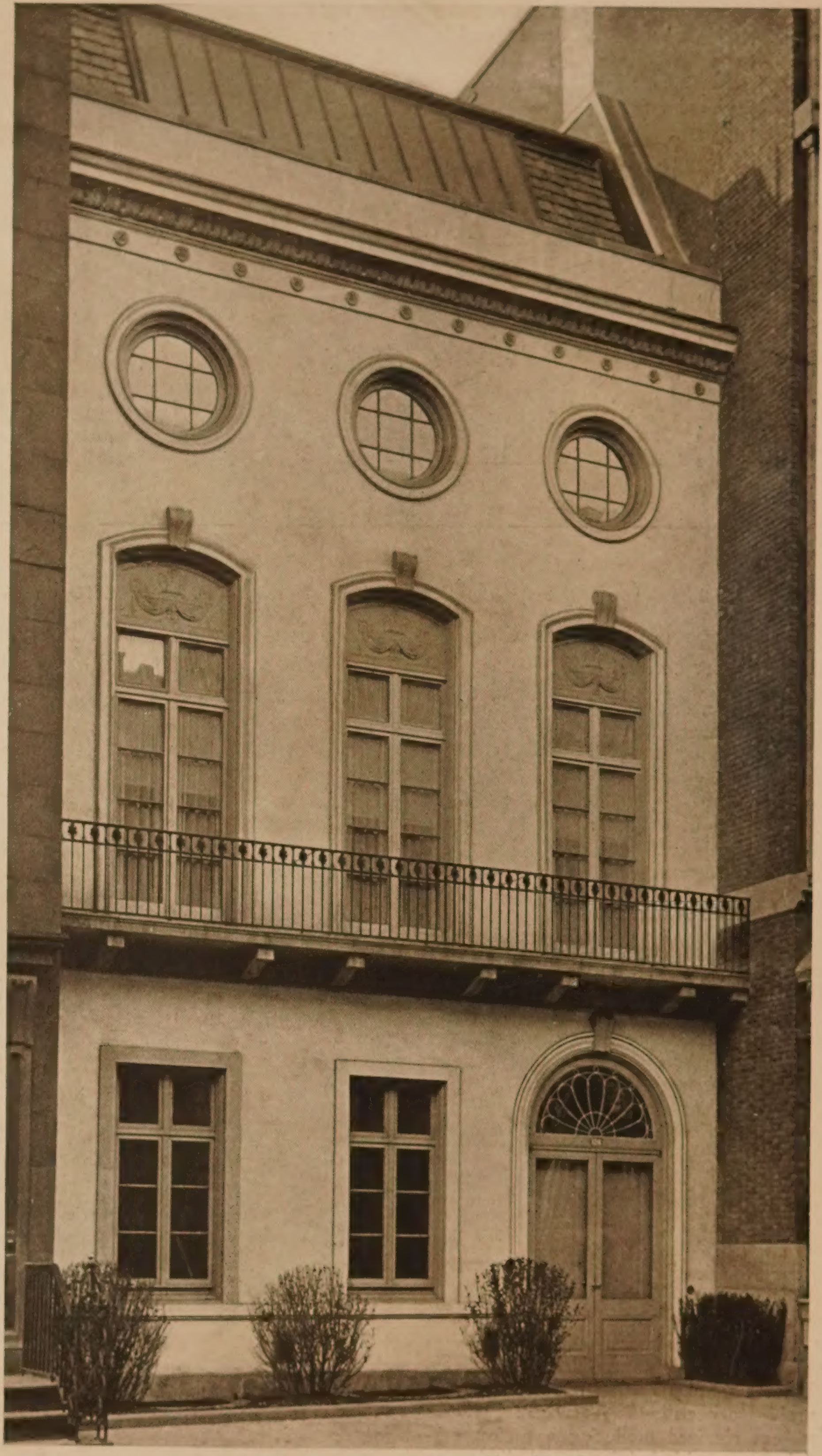
THIS building, occupying the site of a former garage, was designed by and now serves as a private studio for Messrs. Delano and Aldrich.

The façade is of stucco and Kingwood stone with a wrought iron railing of unusual design. The character of the building, unique among its neighbors in Murray Hill, makes it possible to dispense with a sign.

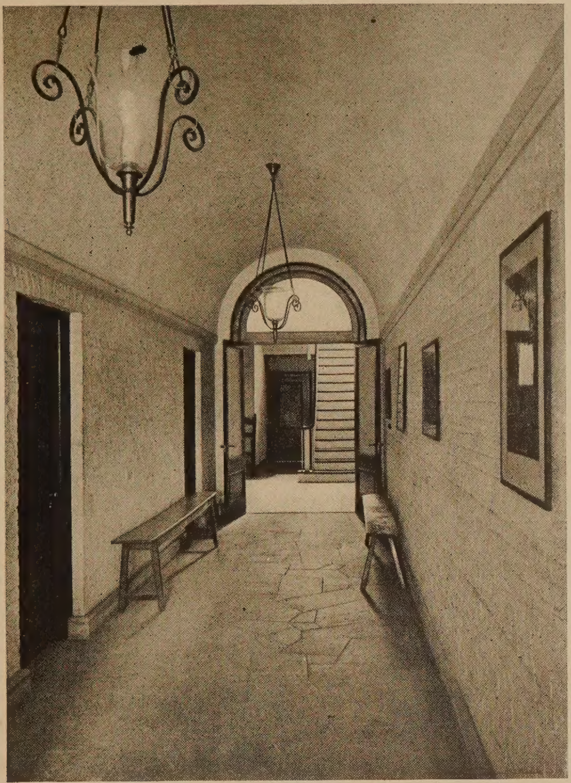
One enters from a vestibule into a vaulted hall paved with stone and furnished with old English benches and wrought iron lanterns which, like all the other fixtures in the building, were designed by the architects. On one side are two reception rooms and the library. The first of these reception rooms has its walls painted a deep orange color, touched up with gold. The fixtures are of wrought iron and crystal and the furniture is Spanish, dating from the early nineteenth century. The other reception room is paneled in butternut and the walls hung with old engravings of architects. The mantels in both these rooms are of Kingwood stone. The library, whose walls are paneled with old Dutch paintings, leads into a small garden at one side with paved walks. Beyond the library is the general office for contractors, where the samples are kept, and beyond this a room for modeling and a locker room.

On the floor above are the private offices of the firm and the business offices, stenographers' and bookkeeper's rooms.

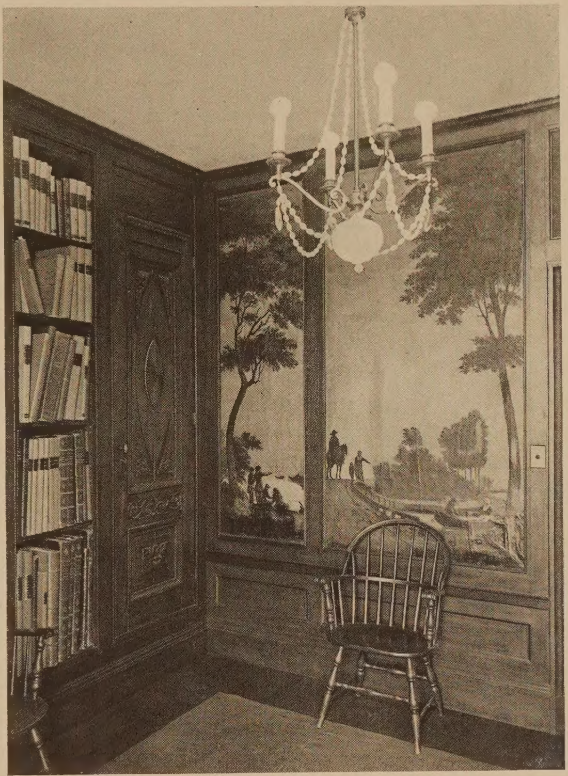
The entire third floor is devoted to a large draughting room, lighted and ventilated by three northerly skylights and by windows on three sides.



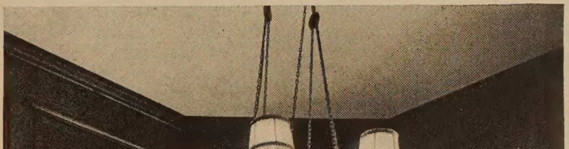
STUDIO, DELANO & ALDRICH, 126 EAST 38TH ST., NEW YORK. Delano & Aldrich, Architects.



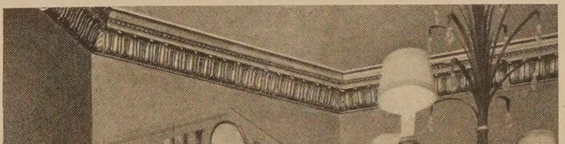
Entrance Hall.



Library.



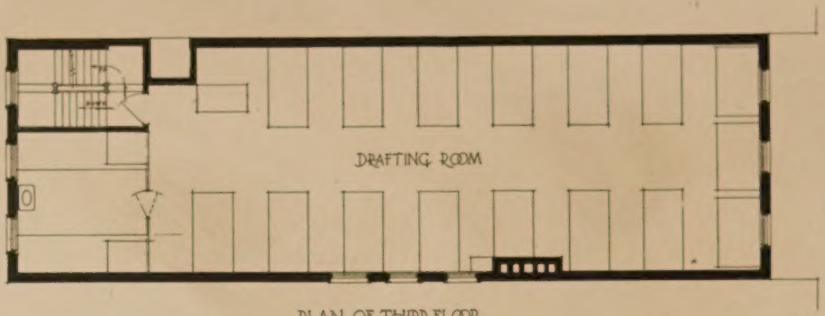
Reception Room No. 1.



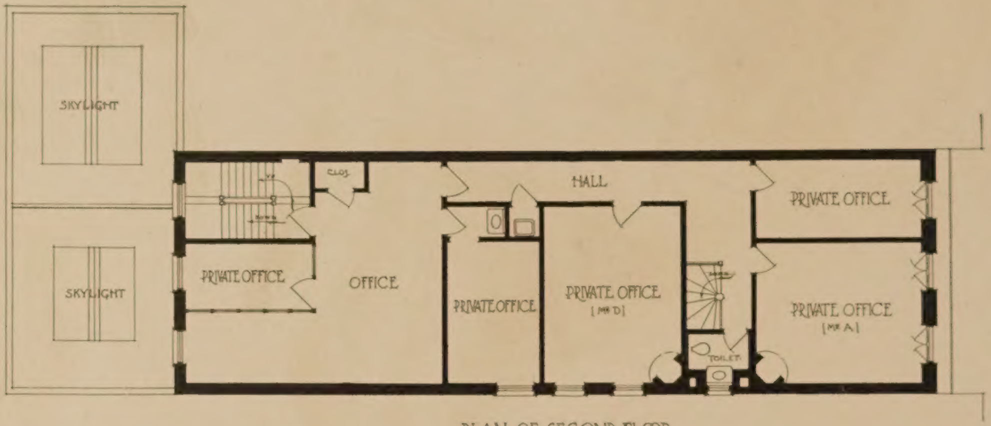
Reception Room No. 2.

INTERIORS, STUDIO, DELANO & ALDRICH, 126 EAST 38TH ST., NEW YORK.

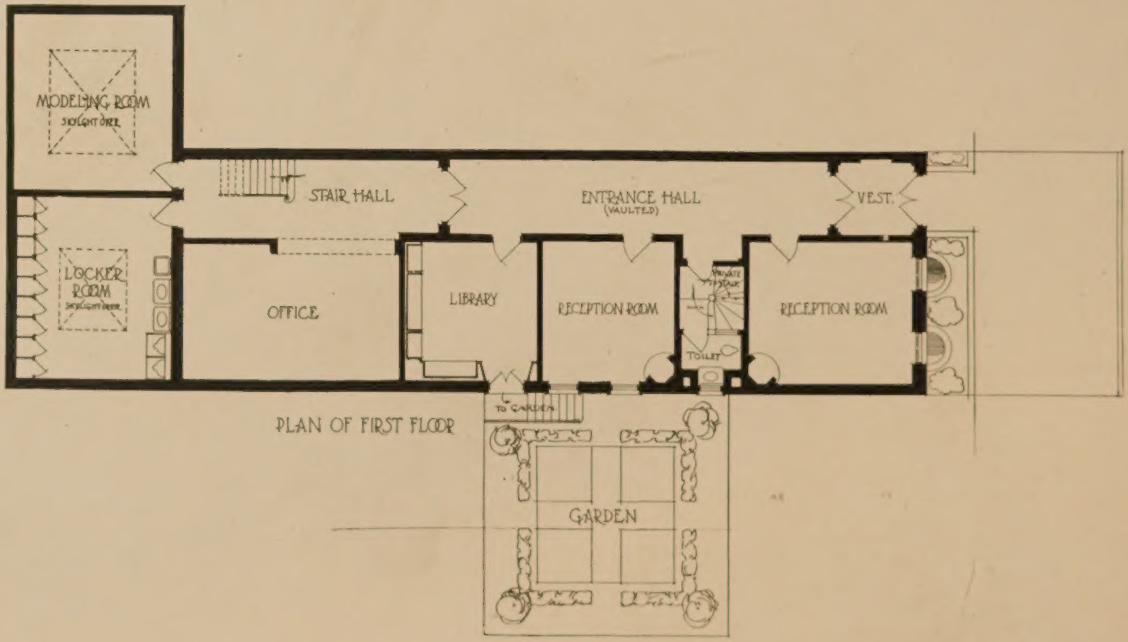
Delano & Aldrich, Architects.



PLAN OF THIRD FLOOR

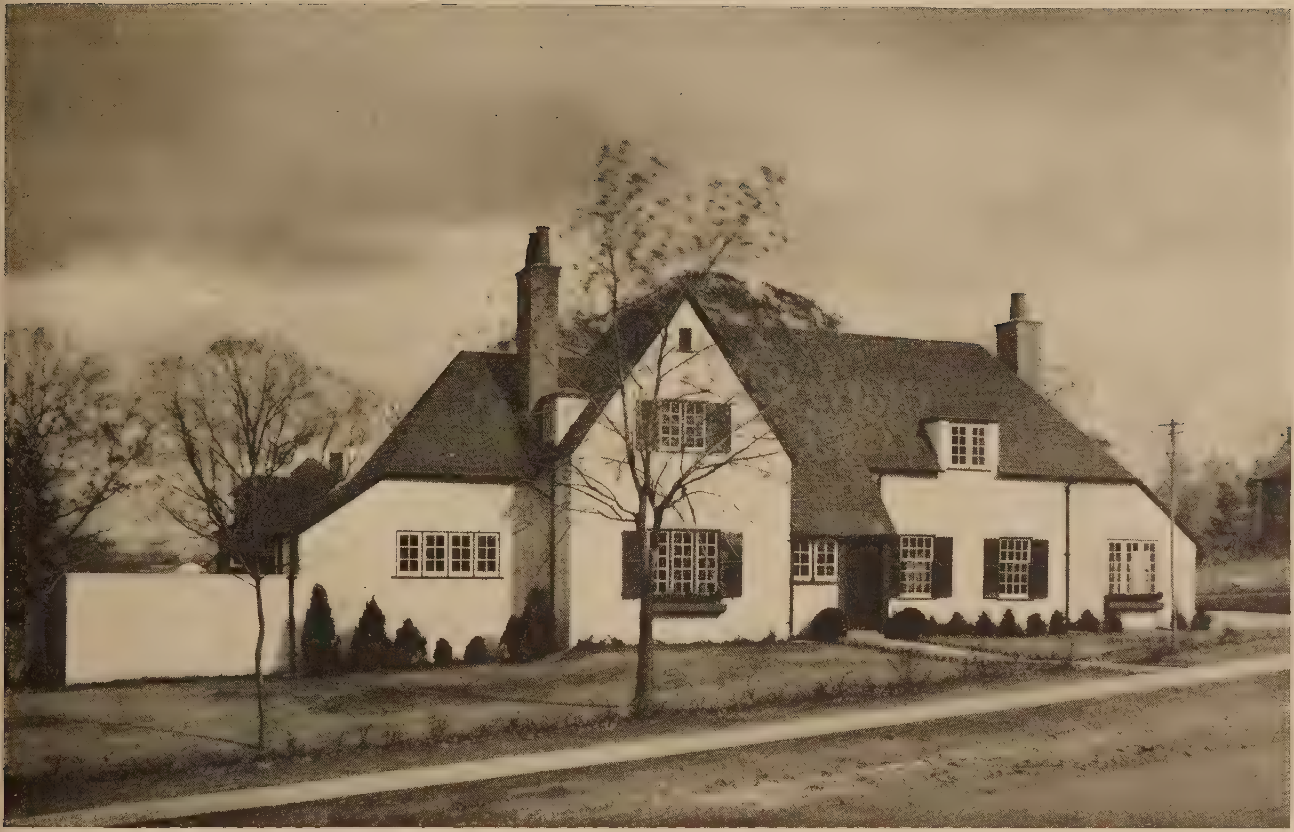


PLAN OF SECOND FLOOR



PLAN OF FIRST FLOOR

PLANS, STUDIO, DELANO & ALDRICH, 126 EAST 38TH ST., NEW YORK. Delano & Aldrich, Architects.



HOUSE, H. R. DE SINCLAIR, NUTLEY, N. J. Lewis Colt Albro, Architect.

IV. Types of Construction

By DeWitt Clinton Pond, M. A.

Mr. Pond, so well known to our readers as the author of "Engineering for Architects," is now writing for ARCHITECTURE a series of articles on different types of construction dealing with the more elemental problems.

A COUNTRY RESIDENCE.

IN the previous articles the work that was dealt with would be classified under the masonry and carpentry specifications. The carpenter's work would be further classified under the rough carpentry for little has been said of finished work. It has been the object, so far, to explain what the constructive skeleton of the building consisted of and not to show how the trim was applied.

Although this article will deal with the framing of the building under discussion, there will be more said about millwork in order to give a more general idea of the construction.

Fig. 18 shows a country residence designed by Lewis Colt Albro, for H. R. de Sinclair, which is characteristic of Mr. Albro's type of design. Although the house is not large, it is artisticly planned and is one of the best examples of small house work. The plan of the first floor is shown in Fig. 19.

The foundation work of this house is but little different from that of the garage and golf professional's house described in the last two articles. The main difference is that in the present case there is a cellar under the central portion of the house. This cellar is not large, as it simply is under the dining room, pantry and kitchen, but provides ample space for the heating apparatus, laundry and storage. It is well to note that the cost of a house can be reduced considerably by eliminating excavating for a large cellar, and the masonry work for the same. Under the living room and loggia there is an air space similar to the one under the joists of the house referred to in the last article. This air space should have a distance of at least 2 feet below the bottom of the first floor joists. If the excavation is made to a depth of 3 feet below the finished first floor level it will be deep enough.

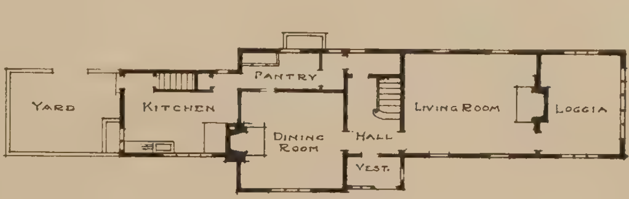
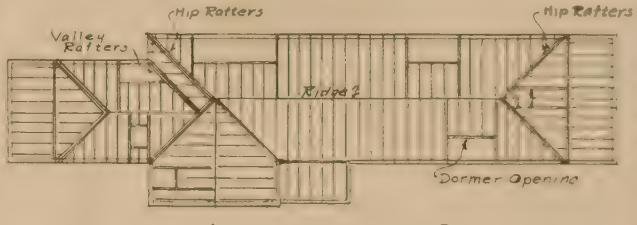


FIGURE 19

The walls for the foundations are made of concrete and are 12 inches thick. They are carried to a depth below the finished grade of 4 feet around the unexcavated parts and to a depth one foot lower than the finished cellar floor around the cellar. The reason for the depth of 4 feet is because it is necessary to have the footing carried below frost as explained in the last article. As the footing under the cellar walls is made 8 inches thick, and as the cellar floor, which comes above the footing, is 4 inches thick, the reason for having the footings one foot below the finished cellar floor can be easily understood. Cellar floors can be made either 4 or 5 inches thick, and if the latter depth is used the floor will consist of a bed of cinder concrete, having a thickness of 4 inches, and a finishing coat of cement mortar consisting of one part cement and two parts sand, having a depth of one inch, and which is brought to a true and even finish. If a particularly good piece of work is required, it is sometimes necessary to have a 6-inch bed of cinders laid below the concrete for the purpose of draining away water that may be found below the cellar floor. It is also customary in some offices to specify gravel concrete in place of cinder concrete. In case the latter is specified the mixture is made in the proportions of one part cement to two parts of sand, and four parts of gravel.

The cellar floor is never laid until the building is nearly completed. The excavating is done first, then the foundation walls are laid, the sills are put in place, and first floor beams are set. The remainder of the framing is almost exactly similar to that of the house in the last article, the only difference being that there is more of it. The corner posts which are 4-by-6-inch spruce, are set and braced. The caps are nailed into place, and the studs spaced 16 inches on centers. They are, of course, doubled at all openings. The only new item in the framing that might present difficulties is that of the roof. The roof over the dining room is simply a gable, but over the kitchen and living room and the loggia, the roof is "hipped" and forms a simple "lean-to" at the extreme ends. This is all plainly seen in the reproduction, Fig. 18. In Fig. 20 the framing plan is shown. The portion of the house in which is located the living room and loggia is of the same width as the dining room. The two roofs, intersecting at right angles, will have their ridges at the same level, and will have the same pitch. The kitchen wing is not as wide as the other two and the ridge will be lower. The pitch is the same in all cases. The roof over the vestibule is simply a continuation of that over the living room wing. The lean-to effect at the ends is obtained by simply continuing the pitch of the hipped portions of the roof.



FIGVRE 20

The dormers will have to be taken care of and the chimneys must have special framing. This is accomplished by doubling the rafters on either side of the openings, and by placing "headers" between these rafters. The headers receive the ends of the intermediate rafters and the dormers can be framed individually.

In back of each chimney there should be a small ridge made to shed water that would otherwise collect in the valley at the back of the chimney. This little ridge, and the framing around it, is known as a "cricket." It is nothing more than a very small gable and is covered with tin or copper, as specified.

This is the first time in the articles that the word "valley" has occurred. Valleys are formed where the roof over the dining room wing intersects the roofs over the living room and kitchen wings. The rafters that are placed at these points are called "valley rafters" and should be made larger than the others as they carry considerable weight. This is accomplished by spiking two rafters together where long valleys occur. The same considerations must be thought of in connection with hip rafters and these should be doubled when they are long.

Where valleys occur, at the intersections of the dormers and the roof, the intersections of the chimneys with the roof and over all crickets, there should be metal "flashing" provided to make the roof tight against leaks. This flashing is nothing more than a metal strip which is placed at each point where water may collect. At the valleys these strips should be at least 18 inches wide, and in some cases, where the pitch of the roof is less than 45 degrees, they should be 20 inches wide. The metal is usually iron, coated with tin and painted with a coat of metallic paint on the under side. On work where expense is not the ruling consideration, copper flashing should be used but the expense makes this almost prohibitive in small houses. As to the kind of tin flashing to be employed, the architect should specify this and as there are several kinds now on the market, it is left to him to investigate the claims made for the commercial brands and to specify the proper weights and kind.

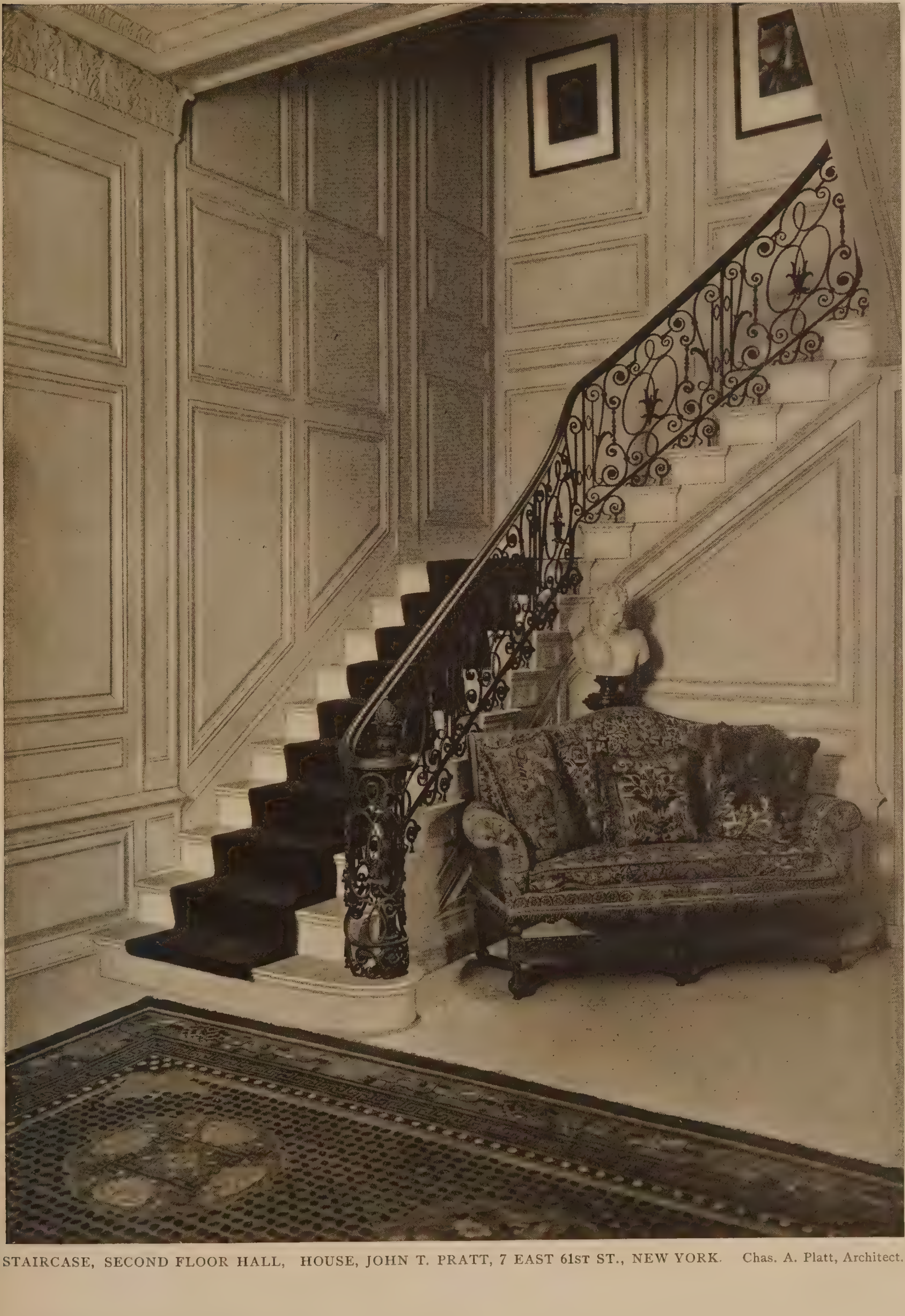
A clause often found in specifications is to the effect that "all valleys shall be open." This means that after the long strips of metal are nailed to the shingle lath, the shingles are nailed over them, but a strip of metal, about 6 inches wide, is left exposed to the weather for the entire length of the valley. The thickness of the flashing at the valleys should be greater than at the intersection of the dormers with the roof, and the latter need be only 14 inches wide. All joints in the flashing should be locked and soldered. The cricket should also be covered with the same metal as is used in the flashing and there should not only be flashing but "counter flashing" at the chimneys. By the latter is meant sheet lead or galvanized iron that is let in between the bricks of the chimney and turned down over the flashing that is brought up the sides of the chimney from under the shingles. This absolutely prevents water from leaking through at the point of intersection of the chimney and the roof.

There should also be flashing at the ridges, and hips.

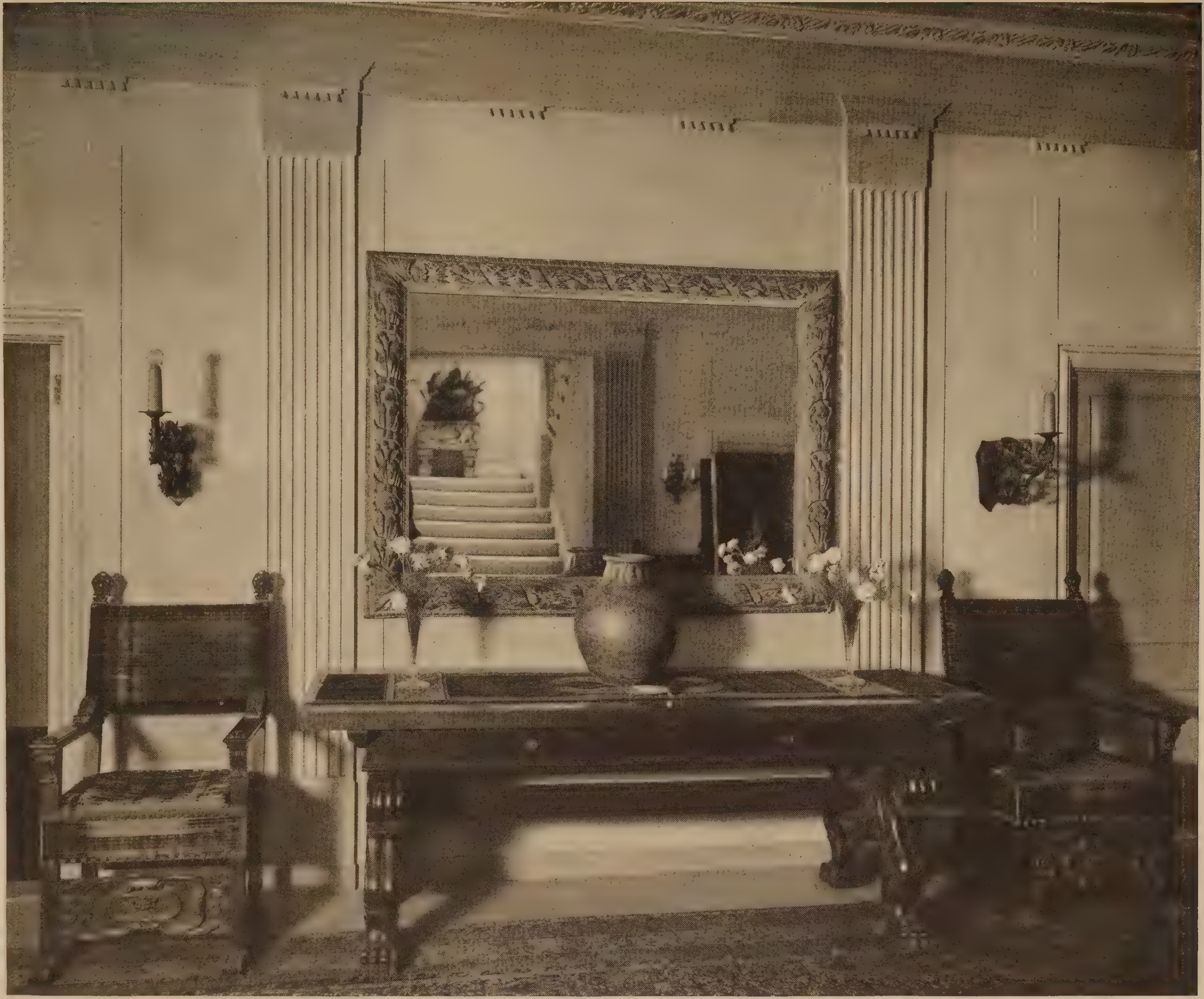
Aside from the features mentioned above the roof is constructed in the same manner as those referred to in the last two articles.

It will be noticed that the exterior of the house is finished with stucco. This is nothing but cement mortar with a mixture of lime. The house is sheathed in exactly the same manner as for a shingle or clapboard finish, and over the sheathing the building paper is put on with a three-inch lap. Over the building paper builders' lath is applied 12 inches on centers, and on this is nailed metal lath. For very good work special furring strips are used in place of masons' lath. These are planed from 1-inch by 2-inch strips and are beveled at the outer edges.

The first coat of stucco should be about one-half an inch thick and should be mixed with hair in order to form a firm bed for the final coats which together should be a little more than one-quarter of an inch thick. Every builder has a formula for mixing stucco. There seems to be no absolute rule for proportions of the lime, cement and sand. A good rule to follow, however, is to have the proportions one part of cement to three parts of sand with not more than one-tenth lime. richer proportion of cement is apt to cause cracks.

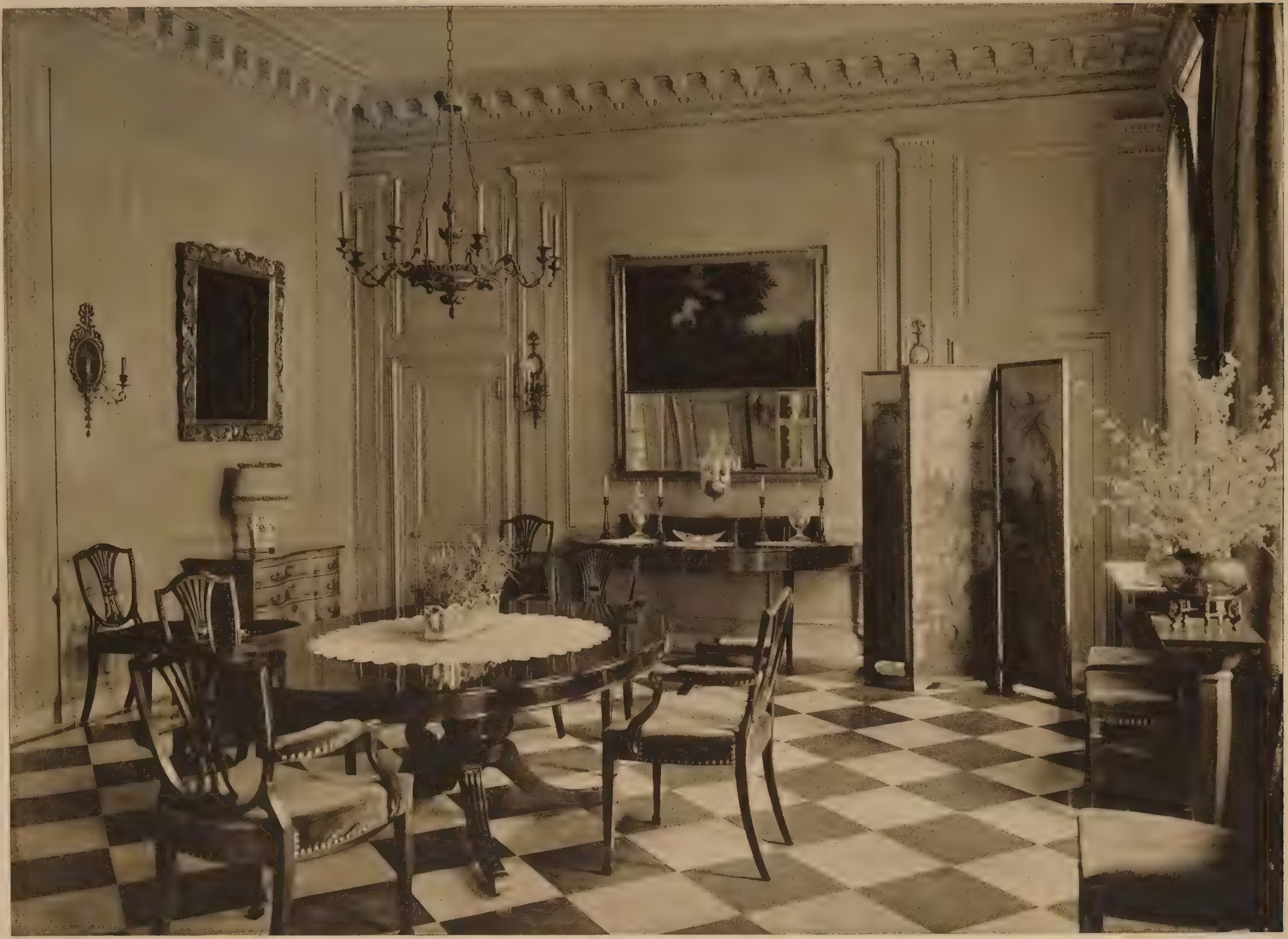


STAIRCASE, SECOND FLOOR HALL, HOUSE, JOHN T. PRATT, 7 EAST 61ST ST., NEW YORK. Chas. A. Platt, Architect.

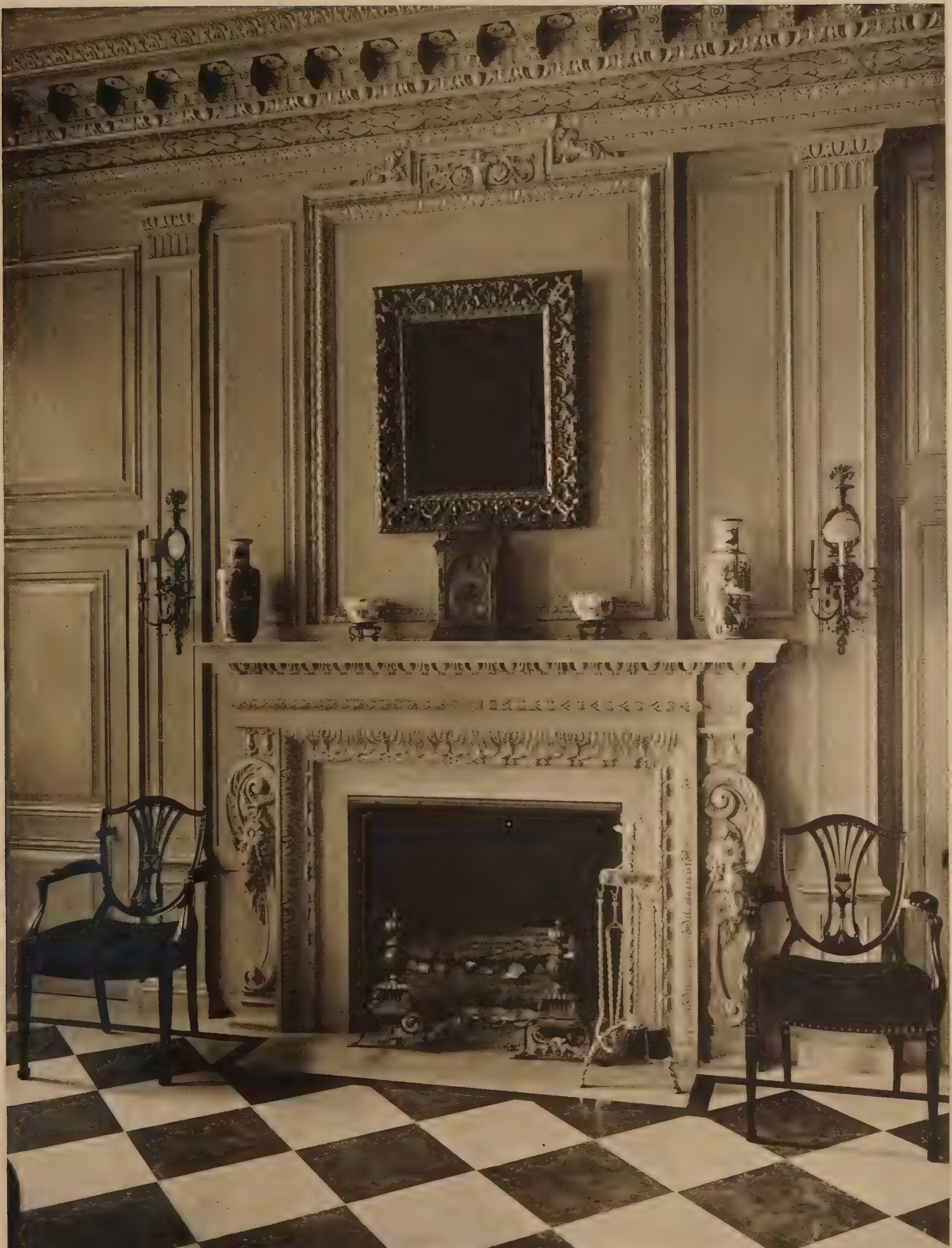


DETAIL, MAIN HALL, HOUSE, JOHN T. PRATT, 7 EAST 61ST ST., NEW YORK.

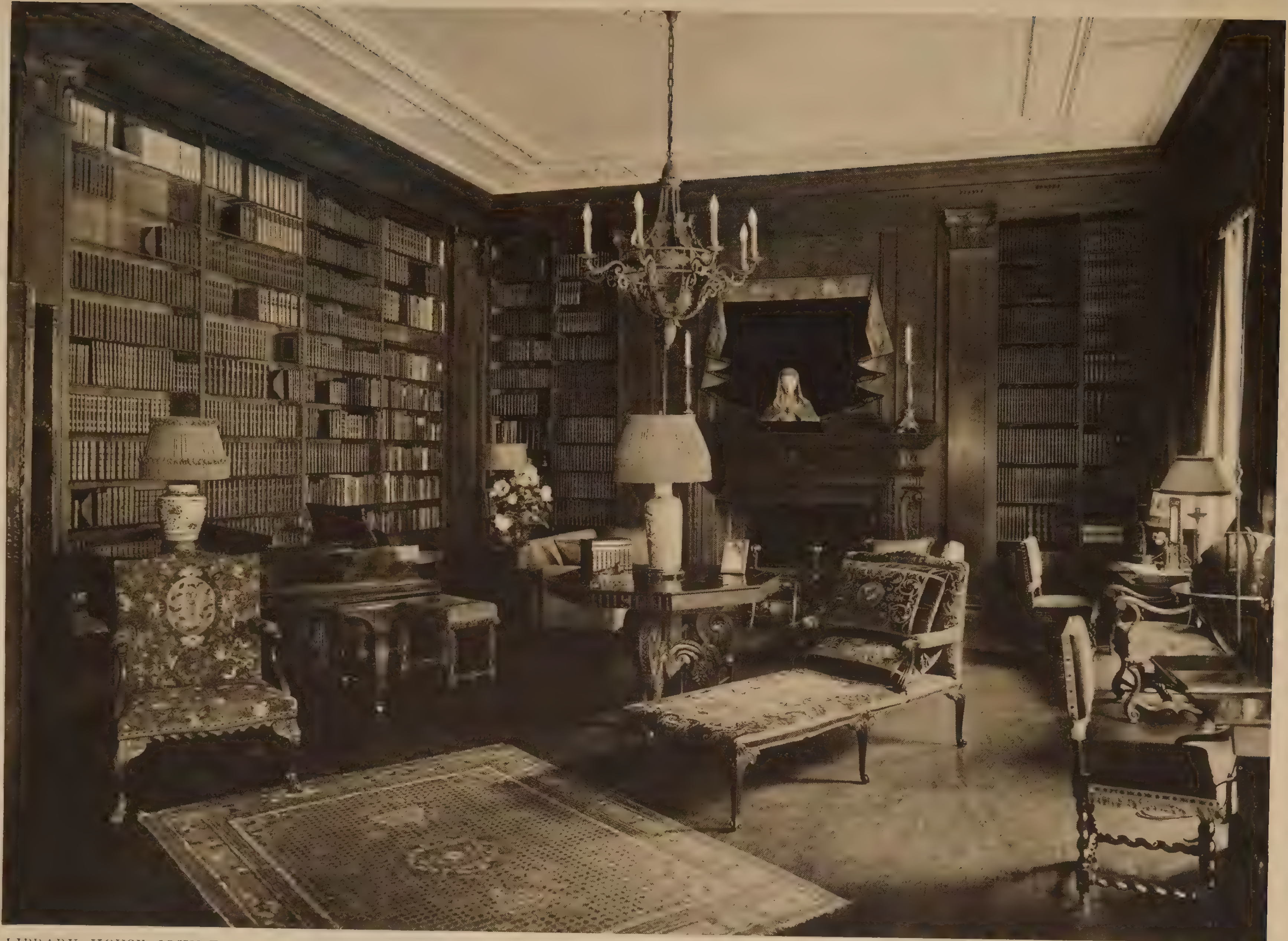
Chas. A. Platt, Architect.



DINING ROOM, HOUSE, JOHN T. PRATT, 7 EAST 61ST ST., NEW YORK. Chas. A. Platt, Architect.

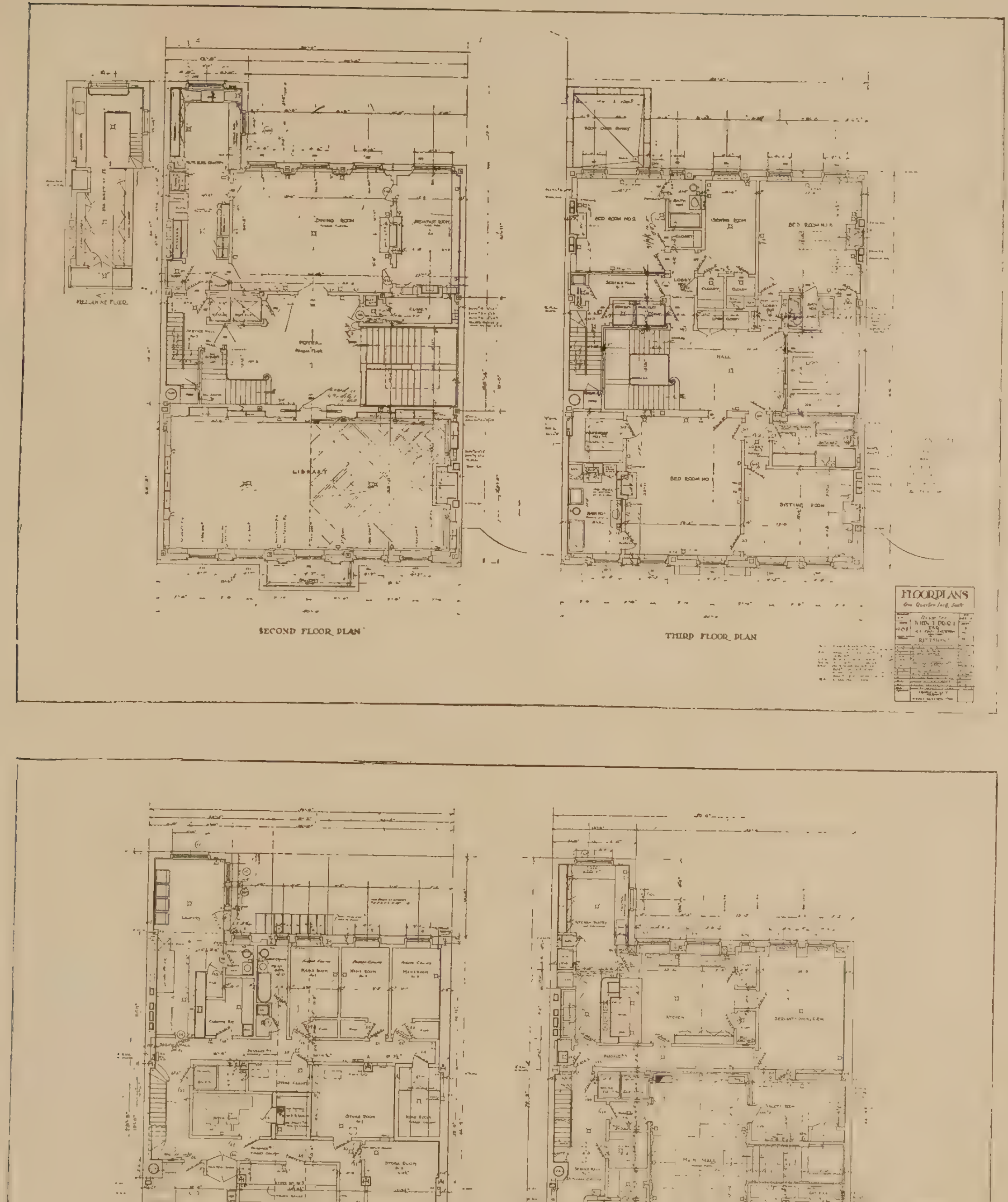


MANTEL, DINING ROOM, HOUSE, JOHN T. PRATT, 7 EAST 61ST ST., NEW YORK. Chas. A. Platt, Architect.

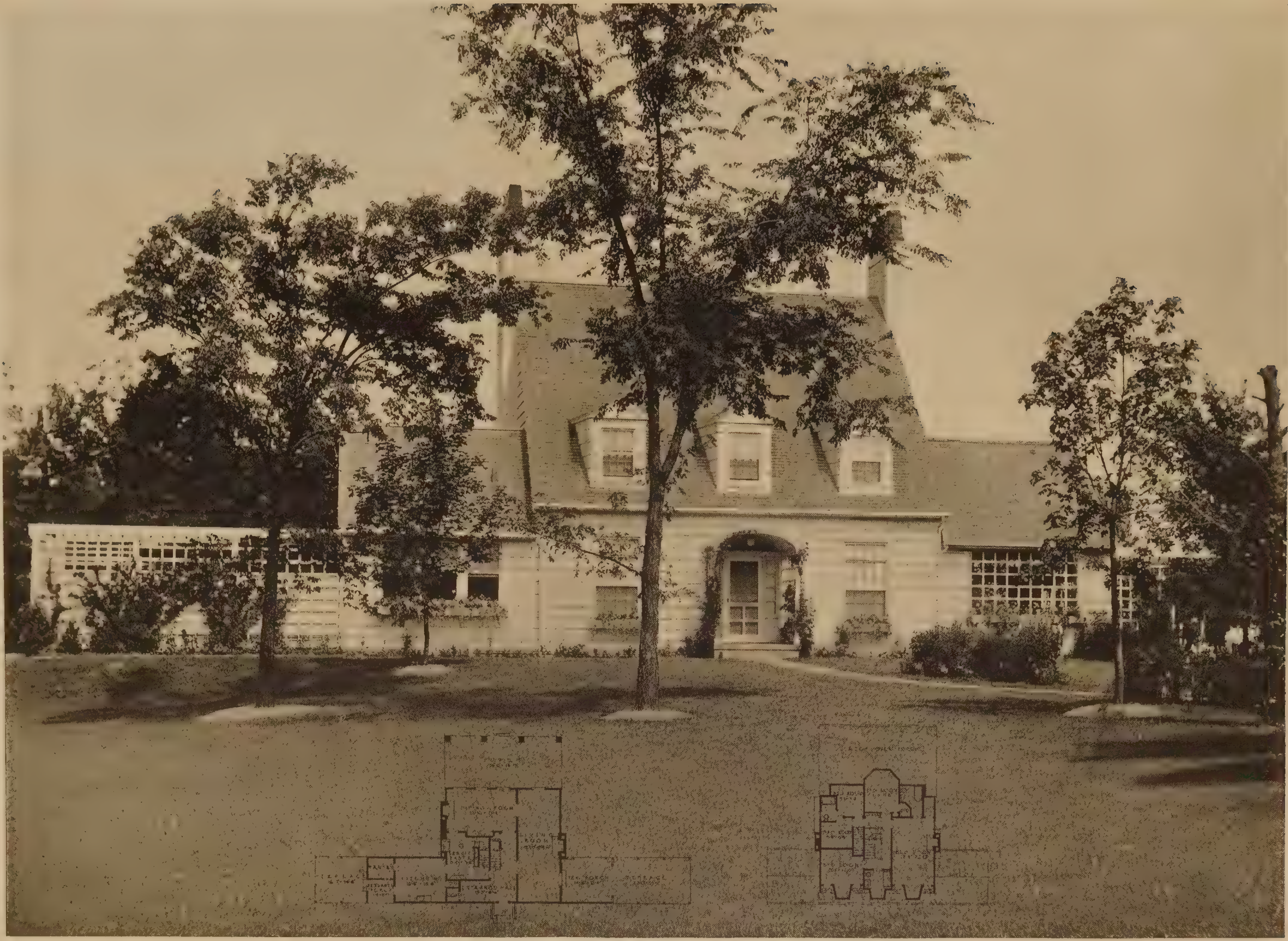


LIBRARY, HOUSE, JOHN T. PRATT, 7 EAST 61ST ST., NEW YORK.

Chas. A. Platt, Architect.

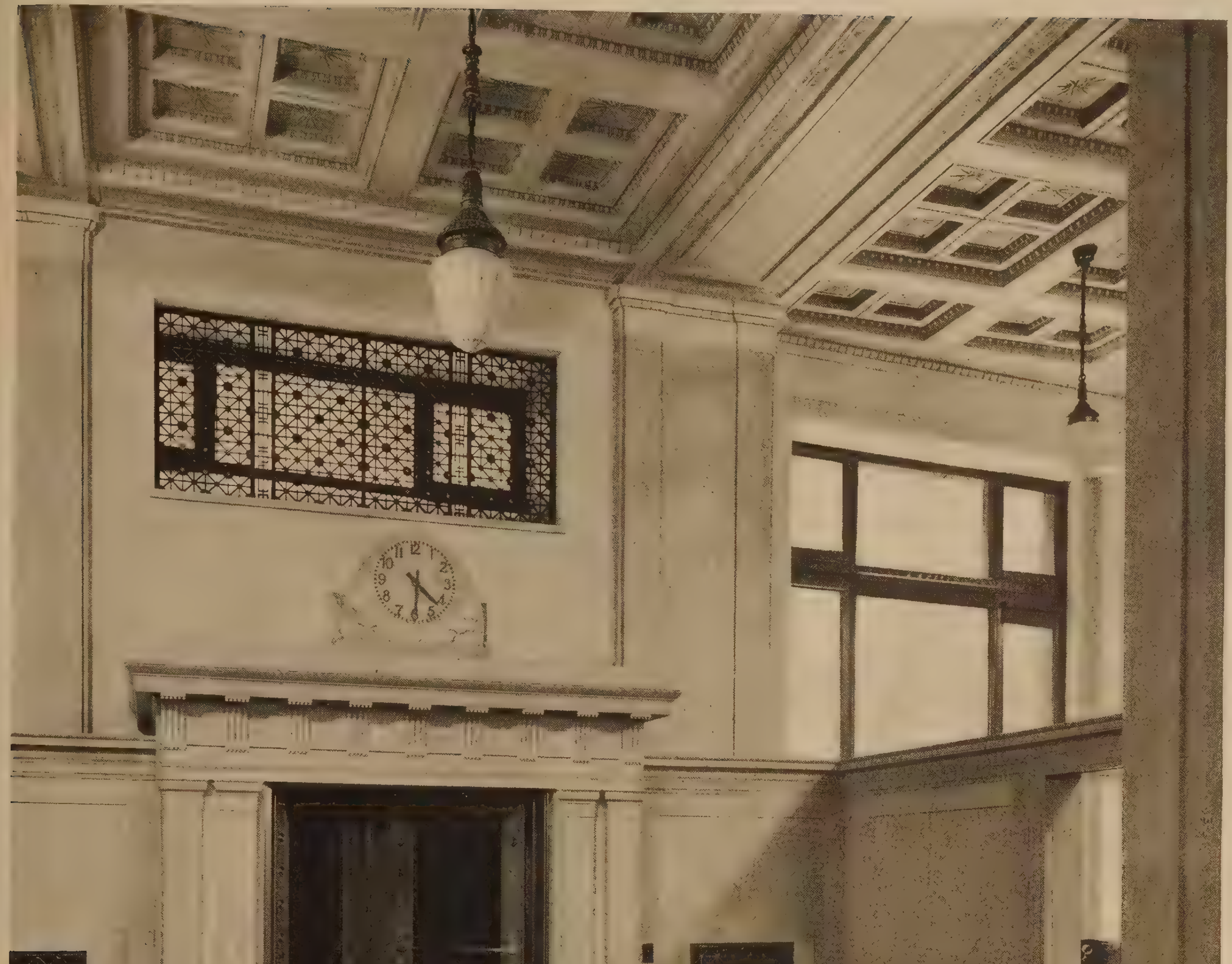


PLANS, HOUSE, JOHN T. PRATT, 7 EAST 61ST ST., NEW YORK. Chas. A. Platt, Architect.

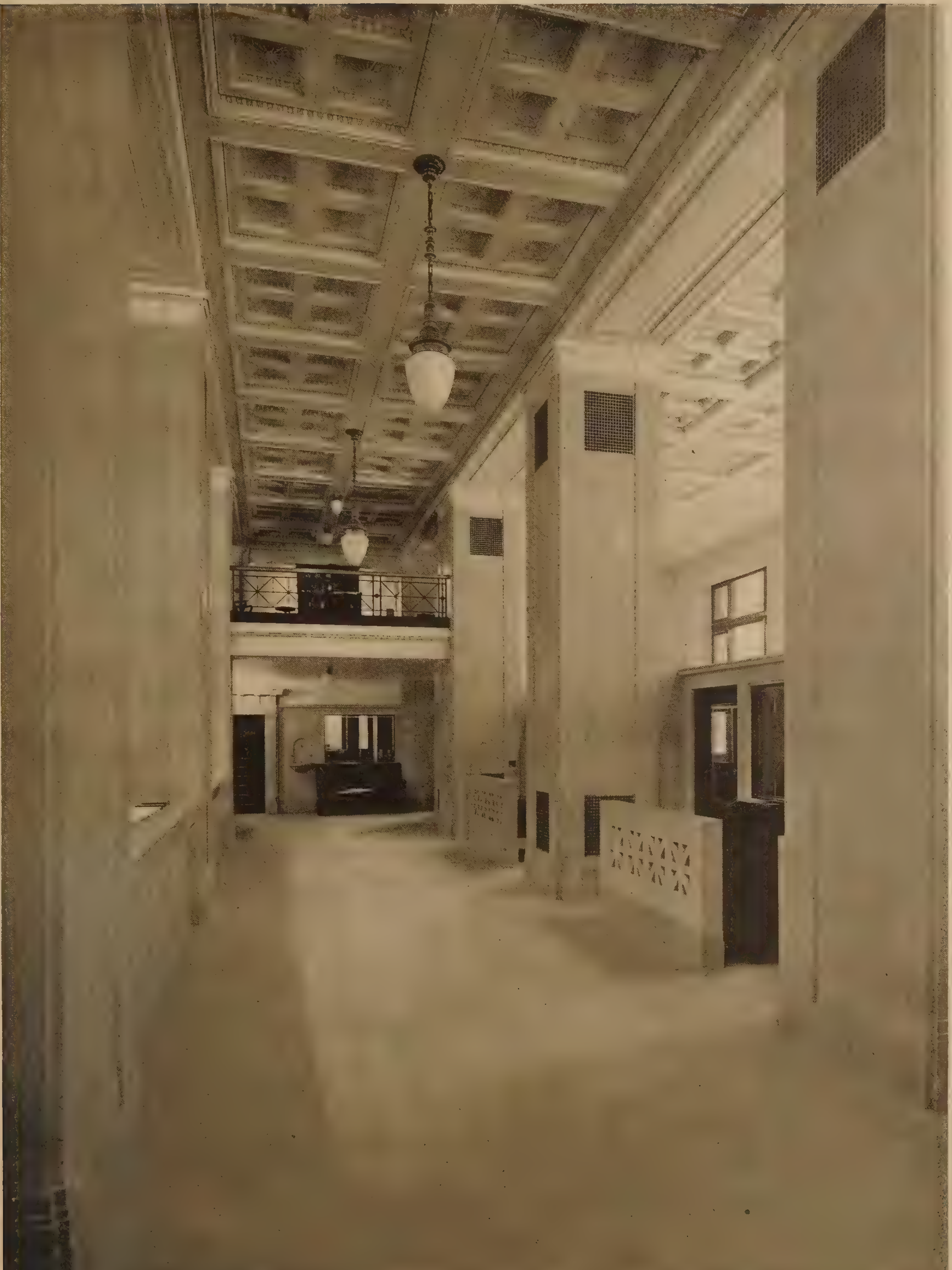


HOUSE, GEN. M. D. HARDIN, LAKE FOREST, ILL.

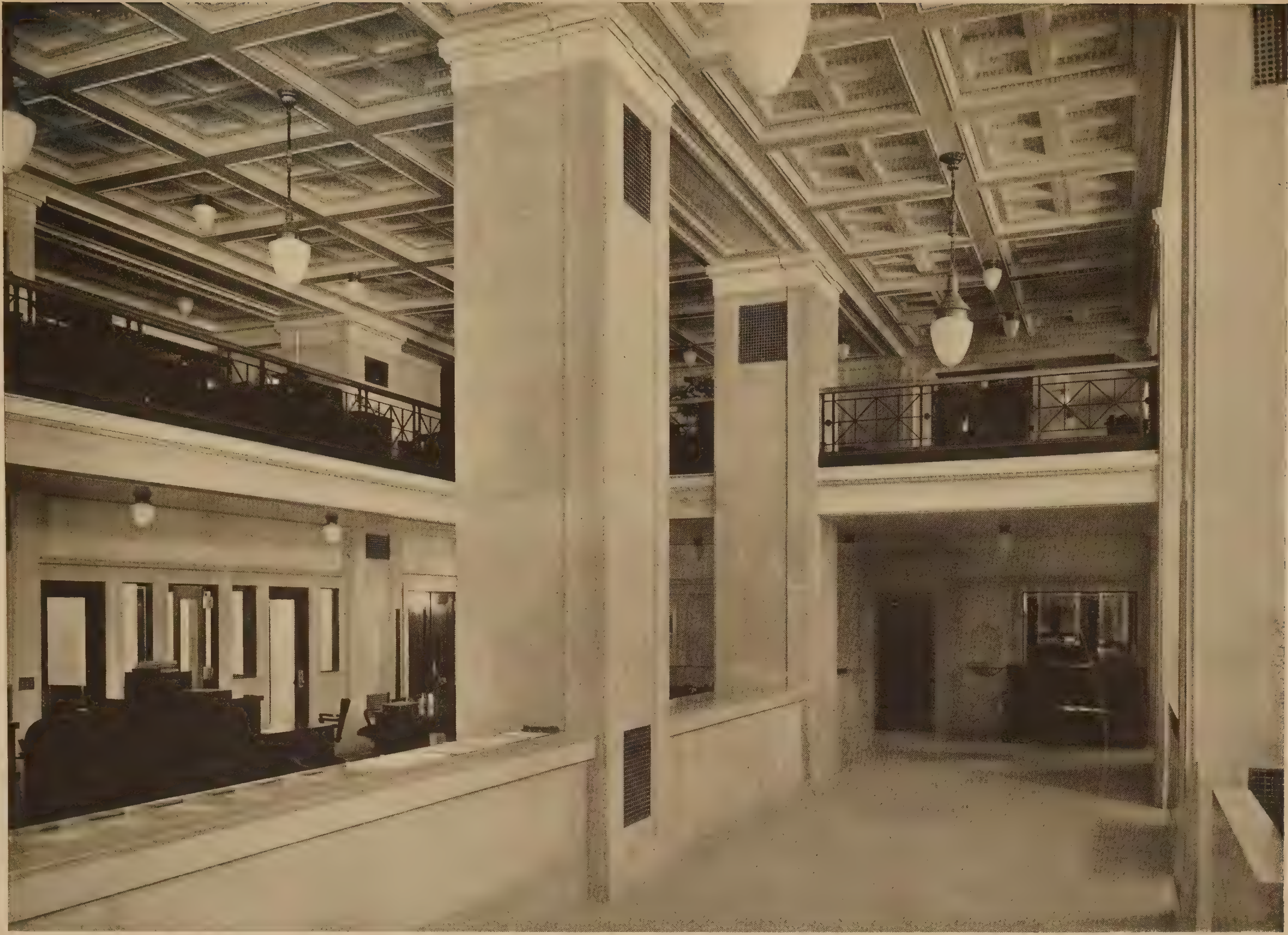
Richard E. Schmidt, Garden & Martin, Architects.



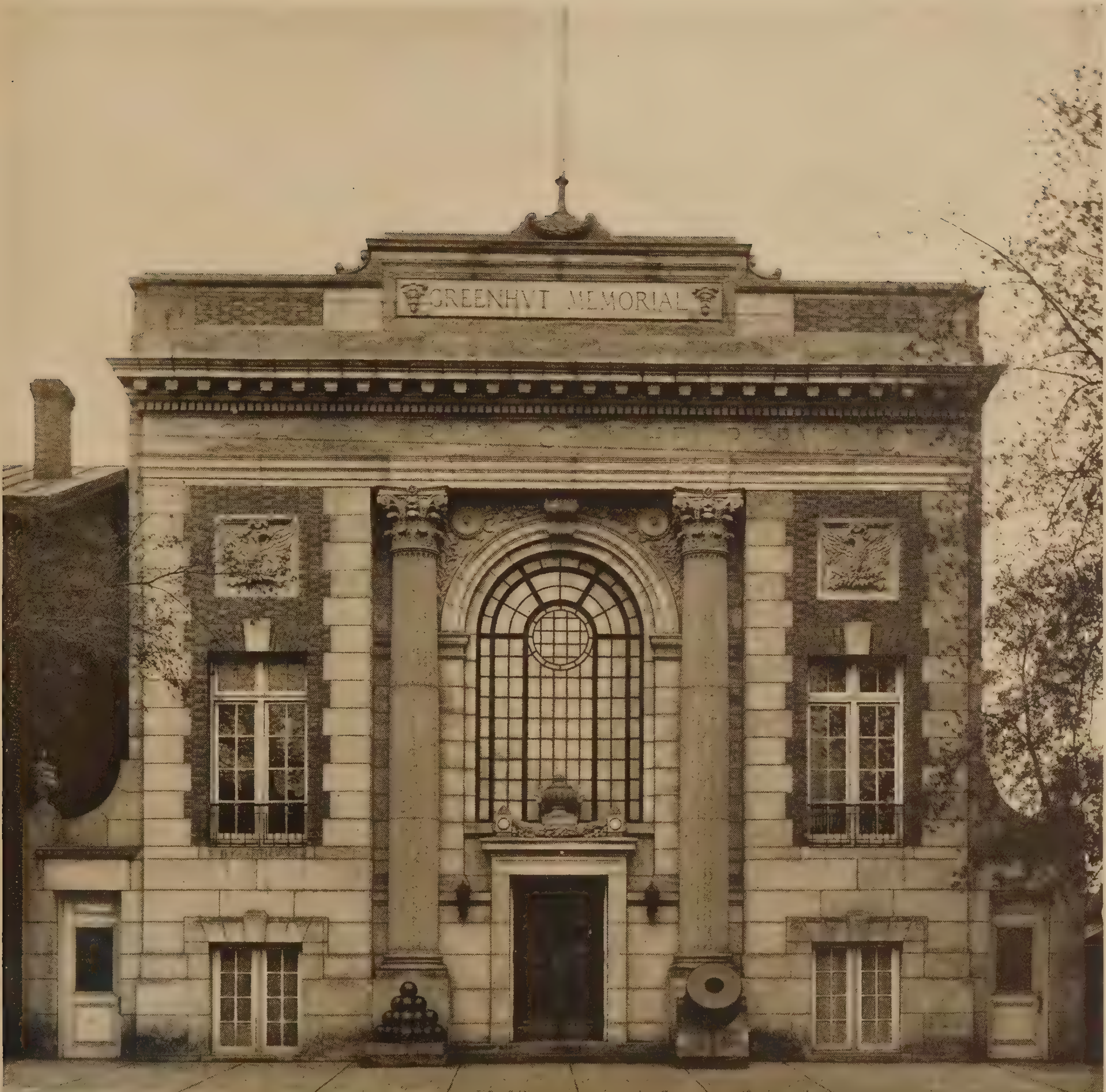
OFFICES, BONBRIGHT & CO., INC., EQUITABLE BLDG., NEW YORK. A. F. Gilbert, Architect.



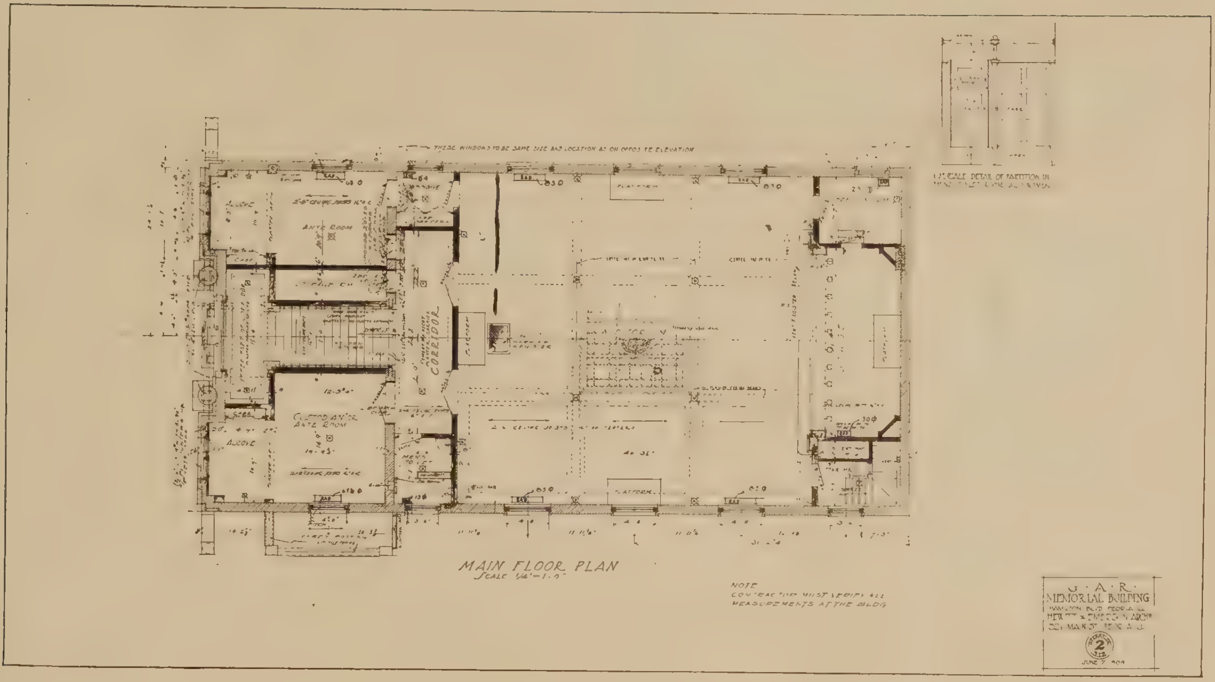
OFFICES, BONBRIGHT & CO., INC., EQUITABLE BLDG., NEW YORK. A. F. Gilbert, Architect.

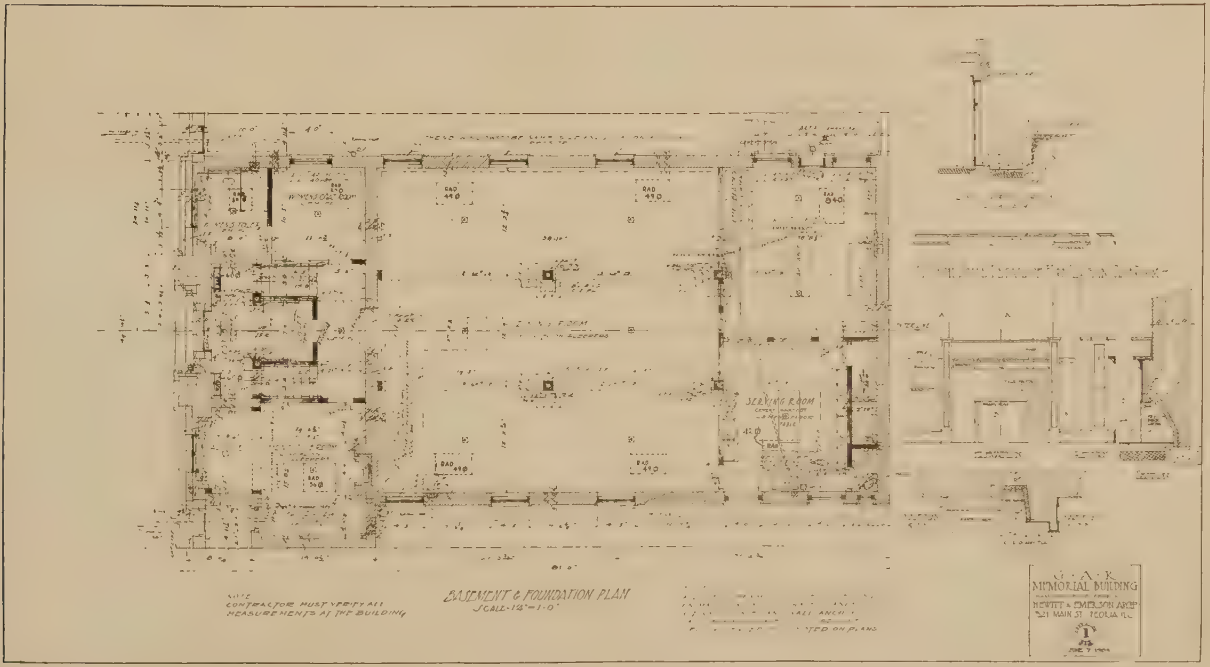


OFFICES, BONBRIGHT & CO., INC., EQUITABLE BLDG., NEW YORK. A. F. Gilbert, Architect.



GREENHUT MEMORIAL BUILDING, G. A. R., PEORIA, ILL. Hewitt & Emerson, Architects.

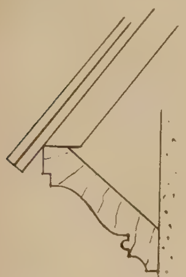




PLANS, GREENHUT MEMORIAL BUILDING, G. A. R., PEORIA, ILL. Hewitt & Emerson, Architects.

So far the general construction of the house has been considered. The matters covered, as far as the carpenter work is concerned, are found in the first part of the carpentry specifications. It depends upon the practice of the office as to the arrangement of the items but such headings as Timber, Framing, Sheathing, Shingle Lath, Shingles, Rough Flooring, Insulation, Grounds and Furring, and so on to Building Paper are found in the first part of the carpentry work.

The items that can be called millwork should be listed together and the following list is given as a reminder—not necessarily complete, but containing enough to give the reader a fairly comprehensive idea.



FIGVRE 21

Exterior Finish, Exterior Cornices, Exterior Trim, Exterior Trellis, Porch Columns, Porch Railings, Porch Ceilings, Lining of Soffits, Cut Rafters, Wood Gutters, Main Entrance, Models, Water Table, Flower Boxes, Window Frames and Sash, Casement Windows, Glazing, Brackets, Exterior Blinds, Door Frames, Doors, Interior Wood Finish, Finished Floors, Interior Trim, Base, Window Stools and Aprons, Paneling, Interior Cornices, Picture Molding, Mantels, Book Shelves, Medicine Cabinets, Wardrobes and Kitchen Dressers, Closet Shelves and Poles, Saddles, Drain Boards, Stairs.

If all of the above items are listed together in the specifications the mill will be able to determine upon the estimate much easier than if the items are mixed up and if it is necessary for the mill men to investigate the entire specification to be sure that all the items have been covered. They are things that should be furnished and should be estimated upon by the mill men. As stated in a previous article, the rough lumber—studs, sheathing, joists, etc.—should be listed by the builders and a separate estimate furnished.

There are items listed above that will not be needed for the house under consideration. Such as are needed, however, will be discussed briefly.

It is generally stated that the exterior trim should conform to the architect's full size details, and shall be of well-seasoned white pine. It is also well to specify that all exterior trim shall receive a priming coat before being delivered to the site, or immediatly after being put in place.

The exterior cornices can be constructed in a manner such as shown in the last two articles. The timber used should be ⅞-inch or 1⅛-inch thick in ordinary cases. In the present instance there is simply an eave mold, as shown in Fig. 21.

The next eleven items may be disregarded in the present instance, as there is practically no exterior trim, columns, soffits, porch ceilings, etc., in connection with the house under discussion.

The window frames need careful study. In this type of house, finished with stucco, and with the architectural design requiring that the glass line shall be on a line with the inside of the sheathing, it is difficult to design a window frame that will enable the sheet metal man to apply flashing properly. It will be noticed that in this house there are about as many casement windows as there are double-hung windows. The former are not as difficult to design as the latter.

The jambs and heads can be cut from 2-inch by 4-inch white pine stock. They should be rabbitted to receive the sash, and with exception of those casement windows that have flower boxes in front of them, this rabbit should be on the outside. It is practically impossible to make a casement window, that opens in, water tight, and for this reason, it is better to have it open out if possible. It might be stated, however, that there are certain disadvantages connected with this. It is impossible to have outside screens, and, if curtains are attached directly to the sash, as is often the case, these curtains will be damaged in case the window is left open in stormy weather.

Fig. 22 shows how the architect would full-size the head and jamb of a casement window. It is well for the reader to keep in mind what the frame will look like when delivered. Too often the draughtsman thinks only in terms of the full size details, which show all the trim in place.

In reference to glazing, it is always specified for the mill to furnish the glass as it is an easy matter for the glass to be put in the sash at the time when it is made. The type of glass that is usually specified is "double thick American, Grade A," or some commercial brand which is known by the architect to be satisfactory. There is usually a clause that states that the glass shall be free from all defects, such as blisters, specks, waves, etc., and shall be clear, and bedded in putty and held in place by glaziers' points. It is also usually specified that the glass shall be back-puttied. By this is meant that there shall be putty applied in the rabbit of the sash and that the glass shall be set in this before being secured by the glaziers' points.

Exterior blinds are usually made with 1⅛-inch stiles and rails and, in case a fixed panel is used, this is usually made one-half inch thick. In case windows are larger than in the present case, the stiles and rails are made 1⅜-inch thick and the panel is increased to five-eighths of an inch in thickness.

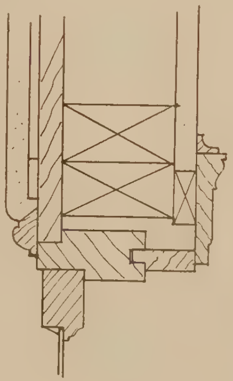
Brackets for the flower boxes can be cut from solid white pine stock measuring 4 inches by 4 inches by 8 inches.

Doors and door frames are described in all text books on construction and need not be described in this article.

Interior wood finish for this type of house is usually made of white wood, although cypress is used for cheap work in the servants' portion of the house.

Finished floors are laid over the building paper that covers the rough North Carolina pine under flooring. This is usually quartered oak flooring in the master's portion of the house and yellow pine flooring in the servants' portion. In cheaper houses it is customary to have yellow pine flooring throughout the house.

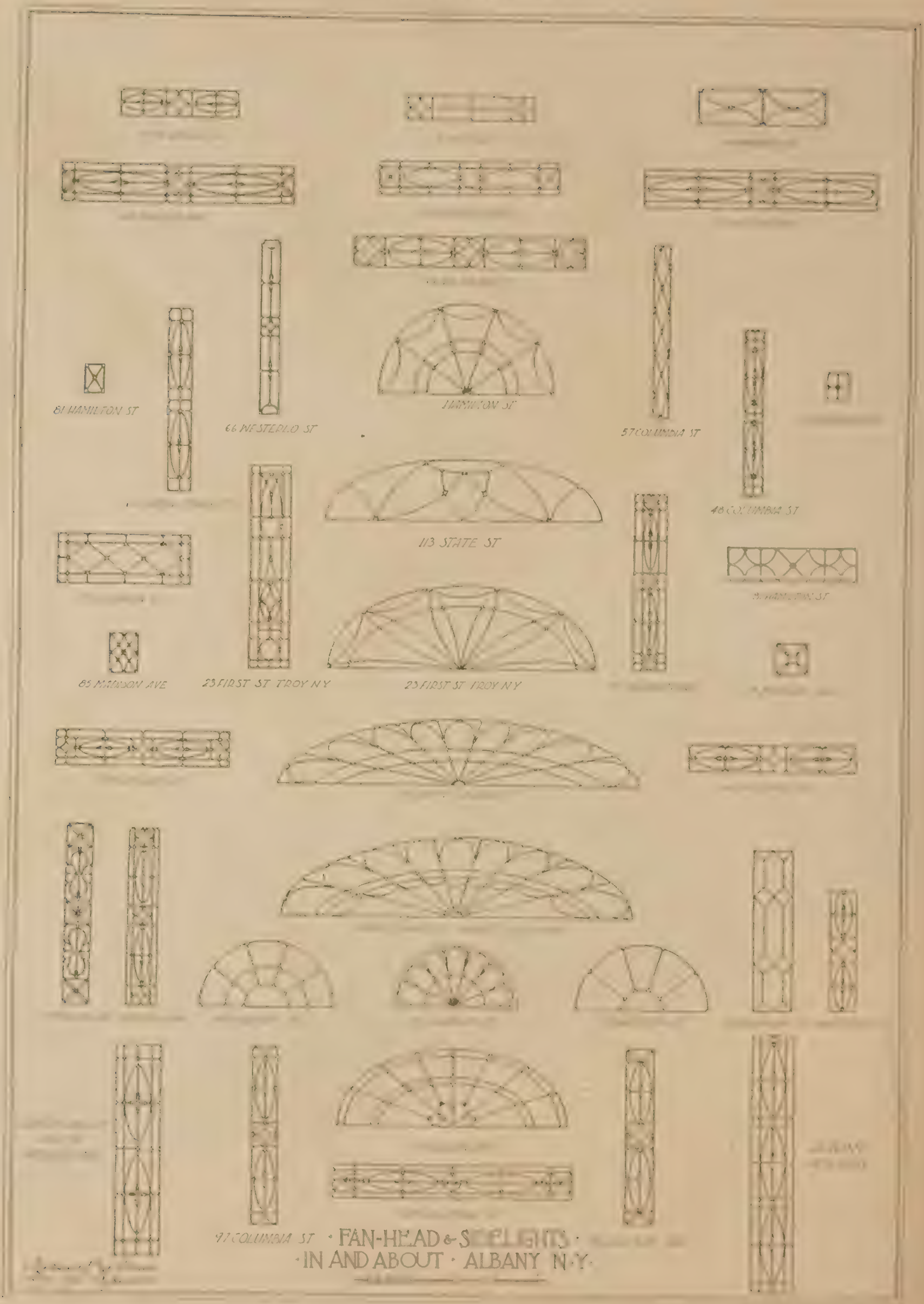
The interior trim is usually specified to be splined and doweled in the shop. It is always advisable to have the back of all trim primed before it is set, as this prevents any moisture that may still remain in the plaster from affecting the woodwork.



FIGVRE 22

All the other items that are referred to in the above list can be detailed according to general office practice. There is a large number of books and sets of drawings available for the draughtsman who is not familiar with this type of work.

This material that is ordered from the mill is usually delivered as the work progresses. It is important to have proper grounds set to receive the trim, cornices, bases, and mantels and the superintendent should see that this is done.



· FAN-HEAD & SIDELIGHTS ·
· IN AND ABOUT · ALBANY N·Y·

The Architect and the Future

By Frank E. Wallis

The following originally appeared in Mr. Wallis' book "How to Know Architecture," Copyright 1914.
by Harper & Bros., New York.

LITTLE has been said concerning the individual, the architect, who has through the ages carried on and developed the laws of the language of building so that we may read the story of man's evolution in composition and construction in our own street and our own home. We have watched the human emotions that have been dominant in molding the changing form on which architectural styles are based. In trying to grasp the salient and especially human characteristics of the styles, we have largely and perhaps wisely overlooked the medium through whom the influence operated.

For the architect's share in the evolution of style is curiously less than would naturally be supposed. He began as a mere craftsman building without traditions for purely utilitarian purposes. Then came the idea of doing honor to Deity and the State, and something more was attempted—first bigness, then beauty. The popular demand and popular aspiration forced the attempt, the medium was the architect. He collected all available experience on the subject and created results in harmony with this demand. He was scientist, and, in a measure, artist, but the fundamental emotional or art impulse came from the people, and he created always within the limitations of popular acceptance and understanding. It is because of this fact that he has told us the true story of the people and of the desires of his time.

Architecture is unique among the professions and the arts by reason of its numberless limitations—traditional, scientific, practical and personal. On the one hand, for instance, is its alliance with the numerous manufacturing and building trades, and on the other is the constructive imagination of the artist seeking expression under the absolute control of financial conservation.

Ordinary every-day human convenience must dominate all traditions, laws, and periods in the practice of the architect. The discrimination and taste of the owner or investor and the requirements of his family or tenant, the social or business environment and the customs of the locality with the materials decided on because of their fitness, are all matters of essential importance.

The constantly changing conditions which exist in the inventive and manufacturing world, the increasing use of concrete and steel, the multitudinous inventions, and the endless flood of catalogues make it almost impossible for an architect to remain fixed in any one mental attitude for any length of time. While he must know as an artist the basic laws of composition and style, he must as a constructor or business man be as well informed in the theory and use of the many elements that are to become part of his scientific whole, and which must have their own peculiar share in the making or the marring of his artistic composition. He must be at least on speaking terms with all such practical and prosaic necessities as steam-heating, electricity, machinery, and plumbing; the constructive ability of contractors, foremen and workmen, as well as accounting methods that enable him to check costs and payments, and to act as a financial expert where these relate to the marriage of these practical and artistic elements. The architect must also know the materials, their texture, color, weight, cost, and composition—all of which have multiplied vastly in number and complexity in recent years.

The personal equation in architecture has, however, more consideration than ever before, and it has been growing in importance practically since the time of the Gothic. Throughout the entire Renaissance period the individual and his own peculiar method become more and more prominent, and the result is apparent in the development of the styles. This, I believe, is the result of the political independence of the individual and of his acceptance of the right to express in any form or period. This personal independence has created and does create subtle differences which may be recognized by those who have more intimacy with the man or with the school than ordinarily comes within the view of the layman. This exists in precisely the same degree as in music or in literature, where men may recognize the turn of a note or of a phrase and its personality.

There is a side of architecture, however, which should fairly be considered by the interested layman as well within the field of his knowledge and judgment. This side includes rugs, with the stories of their Eastern symbolism, furniture and other accessories, and their proper adjustment to their architectural surroundings; china in all its forms; silver in its ancient glory, with its own trade and guild stories; folklore woven into the usual, the common, and every-day weaves and ornaments in linens and laces, showing periods, historical trade truths, and human desire. These stories can be found in all the furnishings that a modern home requires. These apparently unimportant items are too frequently considered beyond the ken of law and of cultivation. The story of human effort and its expression, graphically told, as we have seen, in the everlasting language of stone and brick, is also told in these useful and ornamental accessories. The architect who designs and creates a cathedral will apply the same knowledge of the laws in the selection or designing of a simple piece of table furniture. Why should not the layman secure for himself a share in the pleasures which any measure of this special knowledge does not fail to give?

There is a strong temptation to lose one's self among these various and fascinating related subjects, but of necessity I confine myself to the main branch of expressed civilization, leaving my readers to follow the pleasant by-paths in other company.

Consideration of the human stories in the arts and sciences, with some research among these parallel roads, might well be a part of the curriculum of high schools, private schools, and of every college. Here is educational material of fundamental human importance.

Nor would this interfere with the growth of the financial imagination, nor in any degree reduce the joy of life. It would give to the retiring business or professional man a field in intellectual and aesthetic activity and research with which to end his days, and it would also soften the sharp edges of commercial conflict that is some day to give us the millennium of a general and common appreciation of the good things.

As we have said, the main line of that scientific expression which is architecture is less than half what is popularly called art. In the very nature of things it is a supplying of everyday, tangible human needs for shelter, isolation and comfort; and we, all of us, laymen and scientists alike, may well demand a say in the supplying of such needs.

In this joint partnership of the layman and the scientist the knowledge both of business necessities and the economical adjustments of financial exchange, of business laws, and the practical handling of men is of as much importance as a knowledge of the arts and the laws thereof. This leads us to the conclusion that a good artist cannot be a complete artist without constructive faculty and a full appreciation of commercial or trade requirements.

As it was among the men of the Middle Ages, the modern architect has his guild or society: the American Institute of Architects, with chapters in all the important centers of the country. Almost every strong man in the profession is within this body, although its membership is still a minority of practicing architects. The A. I. A. has done a great deal, by reason of its national character, to strengthen that estimable group of public-spirited and insistent body of practicing architects now living, and to raise public recognition of professional devotion to sound traditions and high standards. This influence will continue to grow so long as intellect and not interest remains the hall-mark of professional success.

The desire of the Institute is to develop this professional authority not only in private practice, but also in the field of Federal building. In this case the client must be the United States Government, which in past years had proved itself a most unenlightened if not over-particular builder. To save the nation from its own folly in thus memorializing itself for posterity, the American Institute of Architects has advocated the creation of a Federal Bureau of Fine Arts.

This Bureau of Fine Arts, and eventually a Governmental Department of Fine Arts, based, in part, on the effective systems in use in France and the other European Governments, is without doubt assured to us in the near future. A great need, a vast amount of public opinion, and all the not inconsiderable influence of the American Institute of Architects, and many other bodies similar in general character, are encouraging the innovation. Certainly the importance to American citizenship is immeasurable.

Of other factors that, working with the architect, play a part in architectural expression, are the material manufacturers, the builders and the workmen. The architect is no longer a craftsman, though he must know as much as the craftsman in each of a dozen fields. He must materialize his ideal of his time—through various human agencies more or less imperfect, usually more than less. He must find all the varying elements that have contributed to his conception—laws, traditions, the national spirit, the dominating ideal of his period, the nationality of the style he has borrowed, the temperament, occupation, habits, and prejudices of his clients and the imaginative quality he has added, interpreted through these others.

The architect, nevertheless, has a profession with peculiar and especial privileges and honors. He is in a most intimate sense the historian of the time, an almost unconscious recorder of the very spirit of nations, and his record has a permanence and a verity unequalled in the world. Even the marvelous literature of Greece is not as much to us today as her architecture, the influence of which, in a hundred forms, is seen whichever way we turn.

And so it will be with the architects of today a century or two hence. They will tell our grandchildren what manner of folk we were. And our grandchildren will laugh or weep at the story. What this story may be I have tried with you to discover. Perhaps I should say I have tried to point a way for its discovery; to give, in other words, a method by which the perspective of time may be applied, however roughly, even to our own day.

And what of the future? If the tendency of the time is toward a further analysis and rehabilitation of classic forms, must we be contented with the prospect of such an operation till the end of time?

If our review of style evolution has demonstrated any one fundamental law regarding it, this is that conditions must produce some compelling ideal, must bring about some great crisis to give science the emotional impetus for creation.

The ideal in architecture today is chiefly the personal ideal—that artistic conscience again—of the group that is building us our buildings; a brilliant group doing excellent individual work, whose ambitions are the strongest element in the architectural progress of our time.

You remember that it was a great ebullition of civic pride which gave Athens her architecture, the inspiration of a new religious ideal that began the Christian architecture called Romanesque, and the addition of a national ideal to that which gave France the Gothic. Similarly, the awakening of intellectual and philosophical interest and activities—a less potent force—brought about the Renaissance, which was not in the same degree creative.

What have we in America comparable to any of these forces? What conflict is going on, or is imminent, that might key us to the creative pitch of these olden times?

With civic pride we are surely but lightly endowed, for national feeling has taken the place of local sentiment. The city of today is not, in these times of universal travel, in any degree like the city of old, which was a nation in itself and sufficient unto itself. Of nationalism, too, we are not heavily burdened. Our recently quickened understanding of commercial and political frailties, our growing national pessimism, and our broadening world sympathies are influences antagonistic to any violent patriotic elation. Nor is a unity of religious or ethical ideal possible with the multiple divisions of creed, the rapidly transitional development of religious thought, and our rather coldly intellectual attitude toward all formulated schemes of ethical truth. While such a union of religious teaching, under some great and inspiring leader, as yet unheralded, is possible, and the various progressive movements toward a more metaphysical and de-doctrinated code seem to be preparing the way, the tendency is so far in the other direction. Religious progress at this time is decidedly toward a broader and freer individualism than the world has ever known. The progress is distinctly intellectual and the age continues an intellectual one. Widely inclusive investigation and experiment, transition, uncertainty, and unrest, though not without progress, are the keynotes of the time, and our architecture reveals it even to ourselves.

The big, dominating force in America today is its industrial feudalism, and its restraining force is the ideal of the individual. This is developed to a point unknown in the previous history of architecture. The opportunities given the average American to express himself in domestic architecture are unique. The condition is undoubtedly an outcome of the interesting partnership between the industrial overlord and his retainers. The overlord requires libraries, institutions of learning, banks, and palaces, and we have them. On the other hand, we have today a domestic architecture of the highest degree of excellence, a new expression which is not only comfortable and fit, but beautiful and supremely convenient.

Science will continue to build more and more amazing temples for the overlord as long as the industrial ideal retains its power. And when the time comes for the third great revolution, or evolution, and that ideal is destroyed or modified, out of the conflict saved by the ideal of the individual unit, will arise a new and vital power, perhaps approaching the ideal socialism of the thirteenth century without the attending horrors, perhaps a world citizenship, and science will build temples to the new ideal, and a new style will be born.

Legal Decisions of Interest to the Architect

These decisions appear monthly and are edited by Mr. John Simpson, the well-known lawyer.

ARCHITECT'S FEES—PROOF OF OWNER'S AGENT'S AUTHORITY TO EMPLOY.

Action was brought to recover architects' fees for the drawing of plans and specifications for a building to be erected on the defendants' premises, and for taking bids for same. The defendants contended that whatever work the plaintiffs might have done in the premises was authorized and ordered, not by the defendants, but by one H. B. Peterson. The plaintiffs claimed that Peterson was an authorized agent of the defendants. The defendants contended the relationship was not sufficiently shown. In 1907, the defendants were the holders under a long lease of a vacant lot in San Francisco, on which there was a sign that they would build to suit a tenant, which sign bore the name "H. B. Peterson, Real Estate." One of the defendants testified that the sign had been placed there under the defendants' direction, and that Peterson was their agent to get tenants for the building to be constructed on the premises. In September, 1907, Peterson had ordered certain other plans of the plaintiffs for the defendants, and for which the latter had paid. Upon receiving this second order, one of the plaintiffs, Mr. Paff, went to look at the lot and saw the sign. The plans and specifications were drawn, delivered to Peterson, who submitted them to the defendants, who, according to Peterson's report to the plaintiffs, pronounced them satisfactory, whereupon they were submitted to contractors and bids were called for. These bids were too high, and the plaintiffs were instructed by Peterson to revise their plans so as to provide for a frame building. This was done and the revised plans were submitted to the defendants and to bidders. A contractor presented to Mr. Paff a card of one of the defendants on which was written a signed note asking Paff to let this contractor figure on the property. Later Mr. Paff called on this defendant who greeted him with the words: "Oh, yes; you are Mr. Paff, my architect." A conversation ensued, in which Mr. Paff was assured the building would be proceeded with shortly. Paff called again sometime later and reminded the defendant that some time had elapsed since the plans were drawn, and asked for a payment on account of his fees, to which the defendant replied that they were about to sublet, and that he would arrange that the plaintiffs should remain as architects and that the subtenants would pay for their services. The defendants finally refused to pay the bill. It was held that the agency of Peterson had been established by sufficient evidence entirely outside of his own statements, and therefore, these statements, as the defendants' agent, in the course of their employment, were admissible. Judgment for the plaintiffs was affirmed.—Paff *vs.* Ottinger (Cal.) 163 Pac. 230.

WAIVER OF PRODUCTION OF ARCHITECT'S CERTIFICATE.

Action was brought for a balance due on a building contract. Various instalment payments were made to the contractors during the progress of the work. The contract provided that no payment should be made except upon the production of the certificate of the architect. The defendant contended there had been a failure to produce an architect's certificate showing final completion. There was sufficient evidence of substantial completion under the contract and specications. While the contract did specifically provide that the architect's certificate should be produced before any payment should be made on the work, it appeared that the owner, of his own motion, disregarded this requirement as to all of the payments except the last, and that he made seventeen payments without any objection to the lack of a certificate. The supervising architect testified: "I prepared the first certificate and handed it to Mr. Bucher. He said, ' have already given the money.' I didn't think much about that, and the next time I brought the certificate he told me he had paid that money and something ahead. I said, 'This is peculiar if you are going to pay checks without certificates,' and I thought if Mr. Bucher was going to keep making these payments, I wouldn't draw the certificates, and from that time on I drew no further certificates." It was held that these facts clearly showed a waiver on the part of the owner of the requirement for the production of the architect's certificates.

Aside from the question of waiver, the Court found that there was a completion of the work, and, therefore, there was no legal ground left upon which a certificate might be refused. Where a certificate is refused without cause, the contractor may not be forever debarred from collecting his money.—Kling *vs.* Bucher (Cal.) 163 Pac. 871.

NECESSITY FOR ARCHITECT'S CERTIFICATE.

An action by an owner for damages based on the negligence of the contractor contained the following provision: "Should the contractor at any time refuse or neglect to supply a sufficiency of proper skilled workmen or of materials of the proper quality, or fail in the performance of any of the agreements herein contained, such refusal, neglect or failure being certified by the architect, * * * the expense incurred by the owner, as herein provided, either for furnishing material or for finishing work, and any damages incurred through such default, shall be audited and certified by the architect, whose certificate thereof shall be conclusive upon the parties." No such certificate had been obtained. The Washington Supreme Court held that provisions of this character render the certificate of the architect a prerequisite to a recovery, save in cases of arbitrary refusal or some fraudulent element preventing the obtaining of the certificate.—School Dist. No. 75 *vs.* Qualls (Wash.) 163 Pac. 760.

IMPLIED ACCEPTANCE OF PLANS AND SPECIFICATIONS.

The Illinois Appellate Court holds that where the report of a building committee of a board of supervisors recommending improvement to a county building and the employment of an architect is adopted by the board of supervisors, and the building committee, believing that such adoption confers power upon it to act, procures the services of an architect, the action of the board at a subsequent meeting in adopting their report constitutes a ratification of their acts. In an action by architects against a county to recover for the making of plans and specifications for a new court house, it appeared that the board of supervisors at a meeting certified a report of a building committee recommending the employment of an architect and that apparently only the question of making improvements on the existing court house was considered at the meeting, but, after presentation of resolutions to the board by citizens protesting against the remodeling of the existing building and requesting an entirely new building, at a subsequent meeting of the board, the committee directed the architect to make plans for a new building and the plans were prepared and presented by the committee at a subsequent meeting and retained by the board without objection or criticism. It was held that this evidence was sufficient to establish a recognition and implied acceptance of the plans and specifications, and the county was held liable for the reasonable value of the architects' services preparing them.—Pauly *vs.* Madison County, 199 Ill. App. 225.

Oral Contract for Architects' Services.

In an action for architects' fees it appeared that the defendants planned to erect a business block on their leasehold. The plaintiffs claimed that they were employed by the defendants, about May 6, 1915, for an agreed compensation of $100, to make sketches for the proposed building and procure estimates of the probable cost of erecting it; that the sketches were made and estimates procured prior to May 15, 1915; that on that date it was agreed that the plaintiffs were to make full working plans and specifications for the shell of the building sketched, procure bids from contractors and superintend the construction; that for such services the plaintiffs were to receive 4 per cent. of the contract price for constructing the shell, provided such price did not exceed $70,000, not including architects' fees, and 10 per cent. additional upon whatever amount such cost would fall below $70,000; and that when the plans and specifications were practically completed the defendants refused to proceed with the building. The answer was a general denial. Upon the trial the defendants conceded the employment of the plaintiffs to furnish sketches and that such were made, but they claimed that the plaintiffs were also to procure bids from responsible bidders, to erect the building according to the sketches, such bids to show a saving of better than $30,000 over the building that could be erected under the plan the defendants had already procured from another architect; that no such bids were ever furnished; that no working plans for the construction of the shell of the building were ever contracted for, and that by their work subsequent to May 13th, the plaintiffs were merely taking a chance of compensation if the defendants could be induced to enter into a contract for the construction of the building by the plaintiffs and a certain construction company jointly, in which event the architects and the construction company should have in addition to the contract price, 10 per cent. of whatever said price was less than $72,800, said 10 per cent. to be divided between the plaintiffs and the construction company as they saw fit. The plaintiffs had a verdict of $2,760. On appeal it was held that the evidence was sufficient to support a verdict in favor of the plaintiffs on both causes of action. As to the second employment, the jury could find that it was fully and definitely agreed to in all its terms, and because of the desire to hurry the work to be done under it, the plaintiffs were to proceed and did proceed with the same, although a written contract or memorandum was thereafter at the convenience of the parties to be prepared and signed. The finding established a present enforceable contract, though a written contract was never executed. Where the parties have assented to all the terms of the contract, the mere reference to a future contract in writing will not negative the existence of a present contract.—Lamoreaux *vs.* Weisman (Minn.), 161 N. W. 504.

Discharge of Surety by Unauthorized Payments.

Where the owner of a building paid the entire amount due under the contract to the contractor before the completion of the building in violation of a provision of the contract requiring him to retain 15 per cent. thereof for 30 days after the completion, and did not require production of receipts for labor and materials furnished as required by the contract, the Colorado Supreme Court holds that the surety on the bond securing the contract, which bond made the contract a part of it, is not liable for the amount paid by the owner above the current price to discharge the claims of laborers and materialmen.—United States Fidelity & Guarantee Co. *vs.* Citizens' Building & Improvement Co. (Colo.), 163 Pac. 281.

Time of Filing Mechanics' Liens.

In an action to enforce a mechanic's lien the Minnesota Supreme Court holds that if the work being done is one continuous work constituting one job, though there are several agreements for the furnishing of different materials, each being a separate contract for some part of the general work a lien claim filed within the statutory time after the last item preserves a lien for all. If the contracts are separate and distinct and unrelated, not in connection with a continuous work or job, a lien claim filed does not preserve a lien upon materials furnished prior to the statutory period. The application of these two doctrines to the varying facts of particular cases is often attended with difficulty. An owner of a building was making some changes. The contractor had a contract for putting in a new front. Materials were furnished by a materialman. The work was completed and the contractor was paid. Later the contractor entered into a contract with the owner for some work in the basement. This work was not in contemplation at the time of the contract for the front. The same materialman furnished material for this work. It was held that the two contracts were separate and distinct and the materialman had no lien for material furnished in connection with the front more than the statutory number of days prior to the filing of his lien.—Paint & Nixon Co. *vs.* Dahlwick, Minnesota Supreme Court, 161, N. W. 257.

Building Contractor's Materials Passing to Trustee in Bankruptcy.

The Federal District Court for the southern district of New York holds that a provision of a building contract that in case of default on the part of the contractor the owner shall be entitled to retain and use all materials brought on the ground by the contractor is not enforceable against the trustee in bankruptcy of the contractor as to materials not owned by him or even in existence at the time the contract was made.—*In re* Midtown Contracting Co., 238 Fed. 871.

Building Column Patents.

The Circuit Court of Appeals, Second Circuit, holds that patents Nos. 853,717, 844,973 and 844,974, for building columns, the improvement in which consisted of the filling of a cap telescoped into a hollow steel column with cement, in addition to filling the column itself with cement, and the insertion of a reinforced rod extending from the cement-filled casing of one column through the cement-filled cap into a socket of the superimposed column, is invalid for lack of invention.—United States Column Co. *vs.* Benham Column Co., 238 Fed. 200.

When Subcontractor Bound by Contractor's Waiver of Lien.

An owner had a contract with a general contractor for the erection of a building, in which contract all liens and claims or right of lien under the Illinois Mechanics' Lien Act for labor or materials furnished were waived. A subcontractor had a contract with the general contractor for the carpenter work. A lumber company furnished lumber to the subcontractor, which was used in the building under the general contractor's contract. In an action by the lumber company to enforce a lien for the lumber, it was held that the waiver in the general contract was binding upon all parties furnishing labor or materials under any subcontract and no claim for a lien could be maintained on account of the lumber furnished.—Lurya Lumber Co. *vs.* Goldberg, 198 Ill. App. 374.

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Editorial

The Minor Arts

ABOUT the pleasantest thing that has come to the architect in the last ten years is the feeling that no longer does he have to work with craftsmen in the minor arts who are incapable of artistic appreciation or intelligent design. It was not so very long ago that an architect who wanted to get a wall surface, whether of brick or of stucco or of interior plaster or even of paint, which was not of stereotyped quality, found himself up against a lot of contractors and mechanics who, if they did not positively decline to depart from their customary practice, gave merely a polite consent to his ideas and then went ahead and did the work the way they wanted. Almost the reverse of this condition is today true and we find that the architects in the country at large are becoming educated by, instead of educating, the contractors.

Let us take one of the bigger industries; for example, the people who are manufacturing brick know more about color, about the management of brick patterns, about the combination of bricks and mortar, and about the probable effect of weather on a brick surface, than do any except a very few architects, and they are willing, even eager, to impart to the architectural profession throughout the country all that they have learned, not only about the brick itself, but about the methods of laying.

Substantially, the same thing is true of the plaster makers. A few years ago the smoothest, shiniest, tidiest surface that could be obtained was considered the acme of desirability, and the plasterer who could not get a wall plumb, level and free from waves and imperfections of surface was considered to be the man who should not be used. Ornament was in high, sharp relief and clearly defined; and a plasterer could not and would not do anything else. Now, due to the study of old plaster ceilings, both in the originals and from photographs, on the part of the plasterer contractors (and even the mechanics), as well as on the part of the architects, we find that the art of the plasterer does not terminate in clean run cornices, straight walls and precise ornament, but includes a treatment of the plaster surface which is amusing and agreeable, a blending of the run moldings with this surface and a treatment of the ornament which is not in sharp differentiation from the rest of the surface but gently flows into it so that the ceilings are decorated with ornament and not spotted by it. The treatment of plaster has not yet developed as far as the treatment of brick and while there is in the experiments in texture in which we are now indulging, the danger of becoming archaistic at the expense of proper development, we can safely feel that one part of the building is being thought about, which formerly was treated with as much unconcern as the framing, so far as its artistic quality went.

Our makers of interior woodwork, even in little country shops, are beginning to realize that the lovely quality of old work cannot be produced by moldings run with mechanical exactness and that slight irregularities and a softening of the sharp lines of arrises do not detract from the quality of workmanship, but do add to its artistic effect. These things have been concurrent with the general improvement in the quality of workmanship throughout the country. Most architects prefer, for example, mitered trim and have found that their miters constantly tended to open. The better woodworking shops have now found ways whereby mitered trim can be kept together even under bad conditions. Methods of gluing up panels and building up doors are likewise enormously improved, and the selection of woods, which was formerly made with a view to uniformity, is now made with a view toward a pleasant diversity.

Of course, it is quite possible that this treatment of surface and texture into which the architectural world has gone so fully, may be carried too far and become theatrical and stagey; and there is always the trouble that good mechanics may produce a regular irregularity, which is obviously false and mechanical. We find, for example, in some of the furniture shops, desks made up in accordance with old English patterns which are complete, even to the pieces knocked out of the corners and to ink spots which have soaked through the wood (apparently). It is like the story of the Chinaman who was taught by an elderly New England woman to make cake in a very superior fashion and who followed her motions so exactly that he invariably threw away the second egg. There is not any sense in such literal imitation of old methods and while we can unquestionably produce the illusion of age, there is a subtle difference and a very important one, between the theatrical and exact production of antique work and a genuine endeavor to catch the spirit which produces the charm of old work and follow that. Old work *per se,* has no value. It is the good design of most of it that is at the basis of the desirability of old work, and the man who imitates the crude and heavy outlines of much Jacobean paneling and feels that he is achieving something, has wasted his time to an extent beyond the man who creates bad work without precedent. The latter adds to the sum total of the world's knowledge, although it may be only of our knowledge of what not to do; the first has added nothing.

Perhaps the people who have used old motives to the best advantage, using good precedent as precedent, and with a clear understanding of its limitations, have been the designers of our metal work for gates and railings, for hardware, and for electric light fixtures. To the last class especially the architects can most respectfully doff their hats. Electricity for lighting is something which has been used only within our generation and the manufacturers of lighting fixtures had no models to follow except those fixtures which were made in former years for gas or candles or for oil. They have approached the problem with a definition of purpose and with a clear-sighted vision which has been wonderful to see. They have drawn upon all old sources for inspiration, have adapted them to new purposes with care and intelligence and with a deference to current principles in design in other lines. The architect of the Georgian house can go to any one of the several good manufacturers of electric fixtures with absolute knowledge that he can procure from one of these makers, fixtures which were not made for lamps or candles or gas and do not look as if they were made for one of these methods of illumination, yet they will be of a pattern which is obviously sympathetic to the Georgian style, correct in scale, proper to its purpose and beautiful in itself.

It is perhaps unfortunate that the designers of work like this do not have an opportunity to make their personalities known. One buys an electric fixture of a beauty not inferior to that of any old lamp or candelabra produced by the celebrated renaissance metal workers, and because it comes from a large factory and is bought through a salesman instead of direct from the designer or metal worker, one knows nothing of the personality which is behind the article and the prestige of the article thereby suffers. It is to be hoped that some time the thoughtful French custom of signing beautiful specimens of modeled or chased metal work may become universal in this country. A few of our dealers in hardware are now selling French pieces which are signed, while the pieces made in their American factories, of perhaps equal merit, are permitted to go as the products of factory work.

If an architect has to design every piece of metal, to superintend the coloring of every fabric and to watch over the production of every surface texture in a building, the time which he can devote to pure design is necessarily greatly curtailed and his productive capacity much limited. The selection of texture and color is something which cannot be delegated and when we can find contractors and manufacturers whose knowledge of color and texture surpasses our own, and in whose hands we can safely intrust work requiring artistic appreciation of those qualities, we are not only freed from the necessity of constantly supervising such work, but we are also freed from the labor and difficulty of endeavoring to induce mechanics trained in a limited range of methods, to depart from the precedents which have become to them practically second nature and from which they will not depart without measures which verge on the coercive.

MR. D. EVERETT WAID, president of the State Board of Registration, asks us to call attention to the fact that the New York State law regulating the practice of architecture has recently been amended.

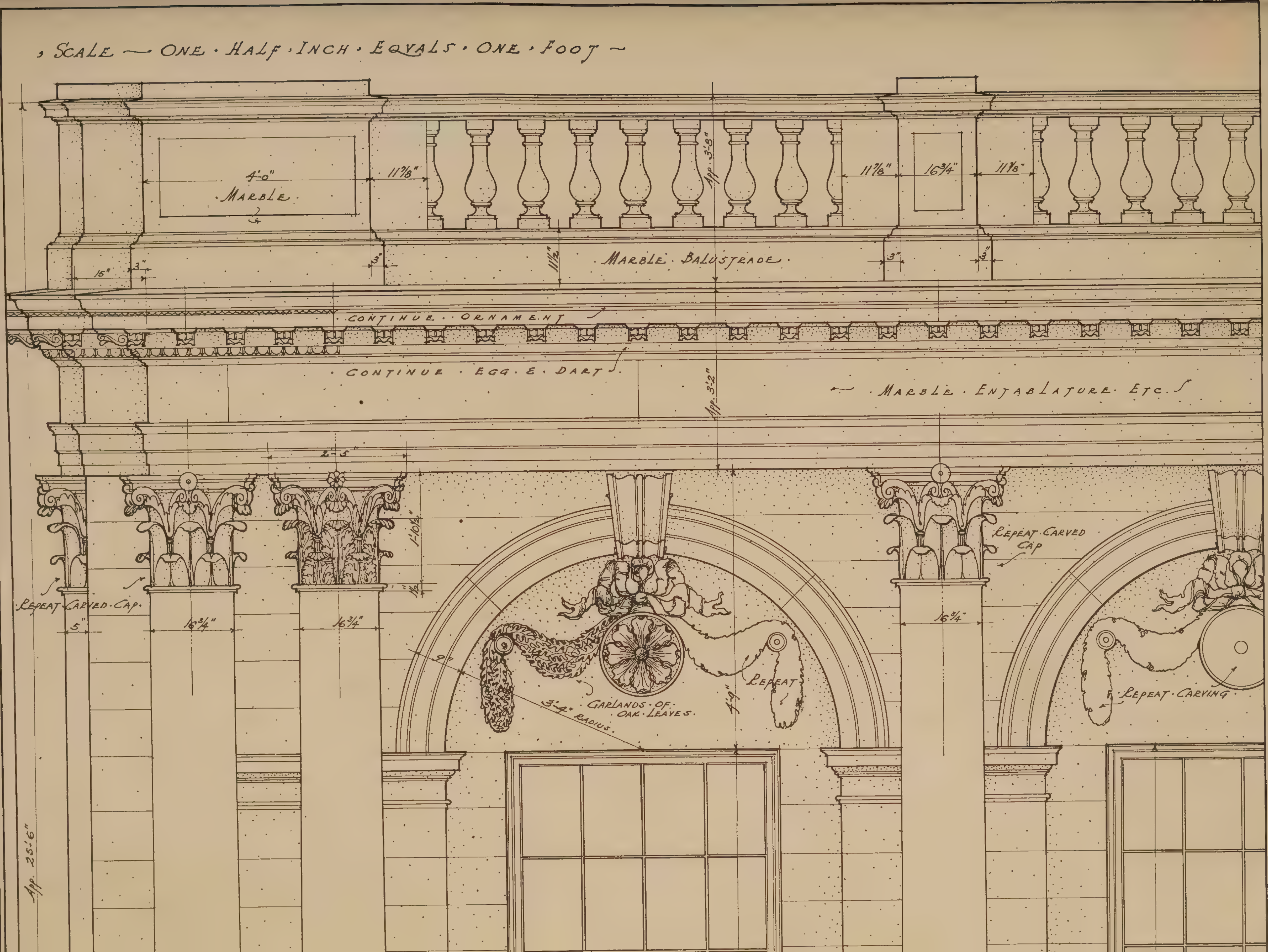
One of the amendments extends the exemption period whereby certificates of registration may be issued to architects who were in practice previous to the enactment of the original registration act, namely, April 28, 1915. Any architects who were in practice in New York State previous to that date may now secure certificates, provided their applications are filed before January 1st, 1918, and provided such applications are approved by the Board of Examiners. Application blanks may be secured by addressing the Department of Education, Educational Building, Albany, New York.

One of the amendments just enacted is of interest to architects of other States and reads as follows:

> "Any architect who has lawfully practiced architec-
> "ture for a period of more than ten years without the
> "State shall be required to take only a practical examina-
> "tion, which shall be of the nature to be determined by
> "the State Board of Examiners and Registration of Archi-
> "tects."

One of the amendments of the New York law which is of interest to those of other States contemplating similar legislation is as follows:

> "but this article shall not be construed to prevent persons
> "other than architects from filing applications for building
> "permits or obtaining such permits."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11⅞"
11½"
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15"
3"
3"
3"
3"
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· CONTINUE · EGG · E · DART
App. 3'-2"
· MARBLE · ENTABLATURE · ETC.
2'-5"
1'-10½"
REPEAT · CARVED · CAP ·
5"
16¾"
16¾"
9"
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3'-4" RADIUS ·
4'-9"
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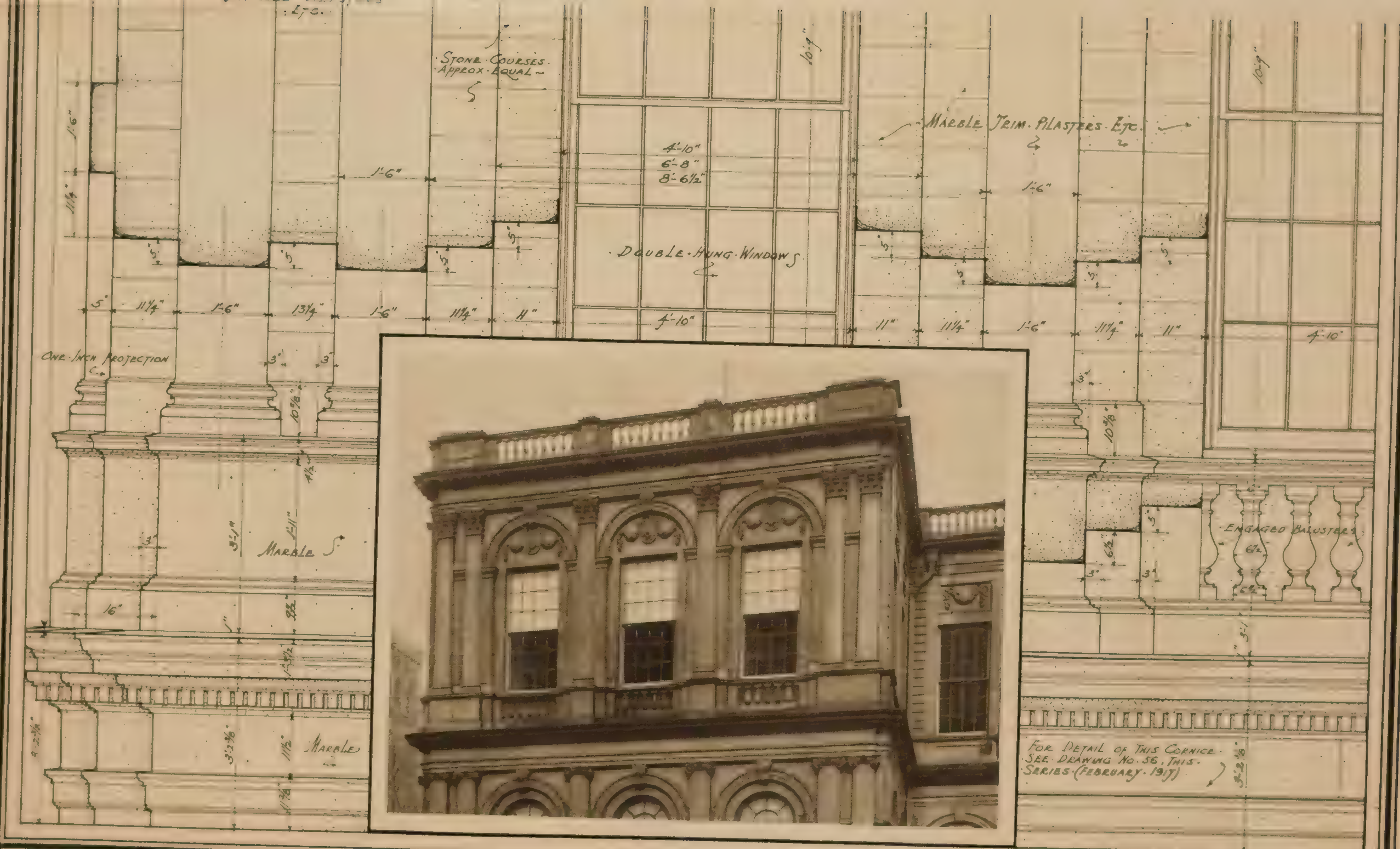
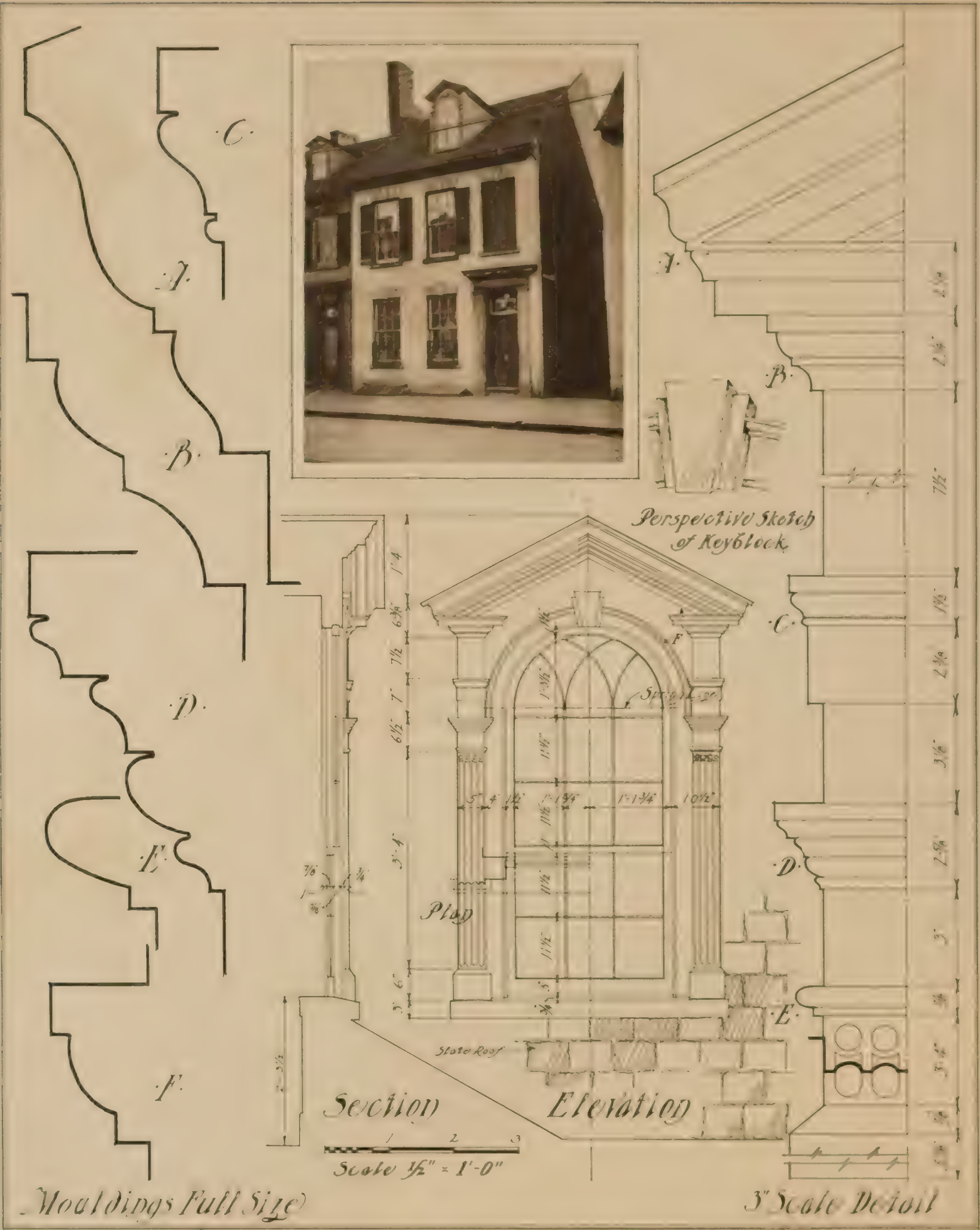
REPEAT · CARVED CAP
16¾"
REPEAT · CARVING ·
App. 25'-6"



"ARCHITECTVRE" SERIES
OF
MEASVRED DETAILS

DETAIL AT SECOND FLOOR
NEW YORK CITY HALL
JOHN McCOMB ARCH'T

DRAWING NO 61
JVLY 1917
DRAWN BY WALTER McQVADE



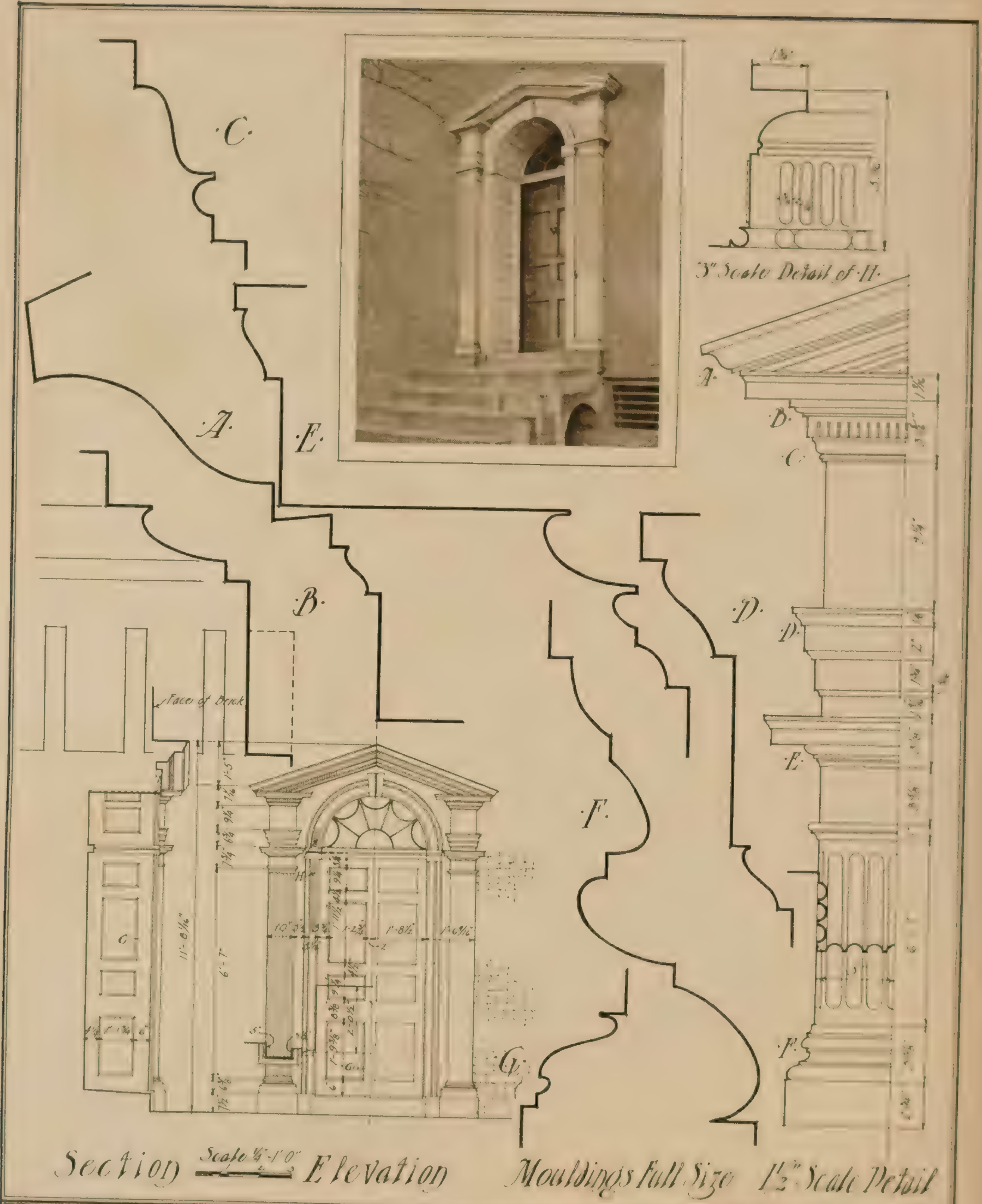
Early Architecture of Virginia

Dormer ~ House 1104 King St.
Alexandria, Va.

Date Unknown

Architect Unknown

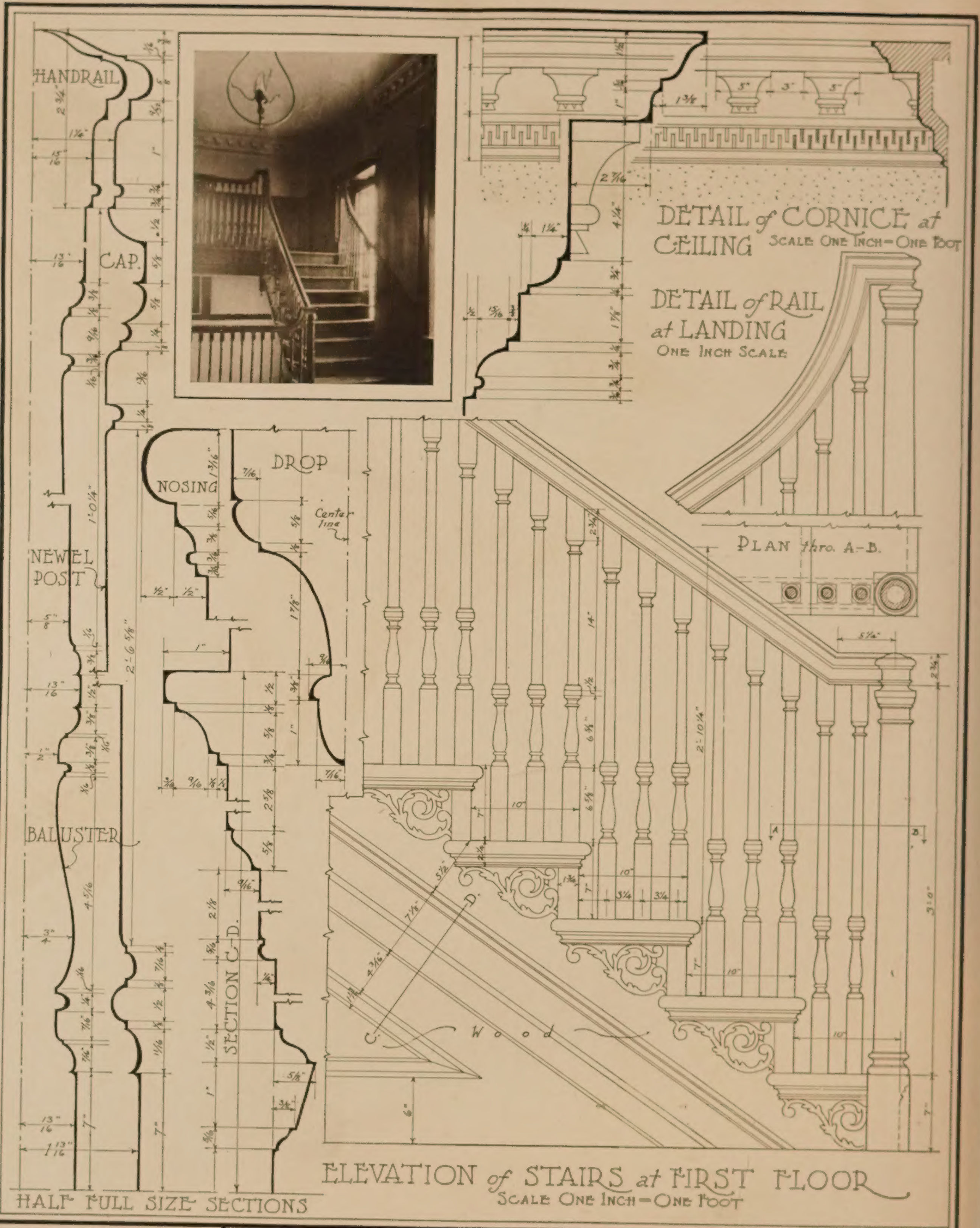
Measured & Drawn By
J. L. Keister
O. J. Munson
J. J. Weber



Early Architecture of Virginia

Doorway ~ Burson House
Alexandria, Va.
Date 1795
607 Oronoco Street

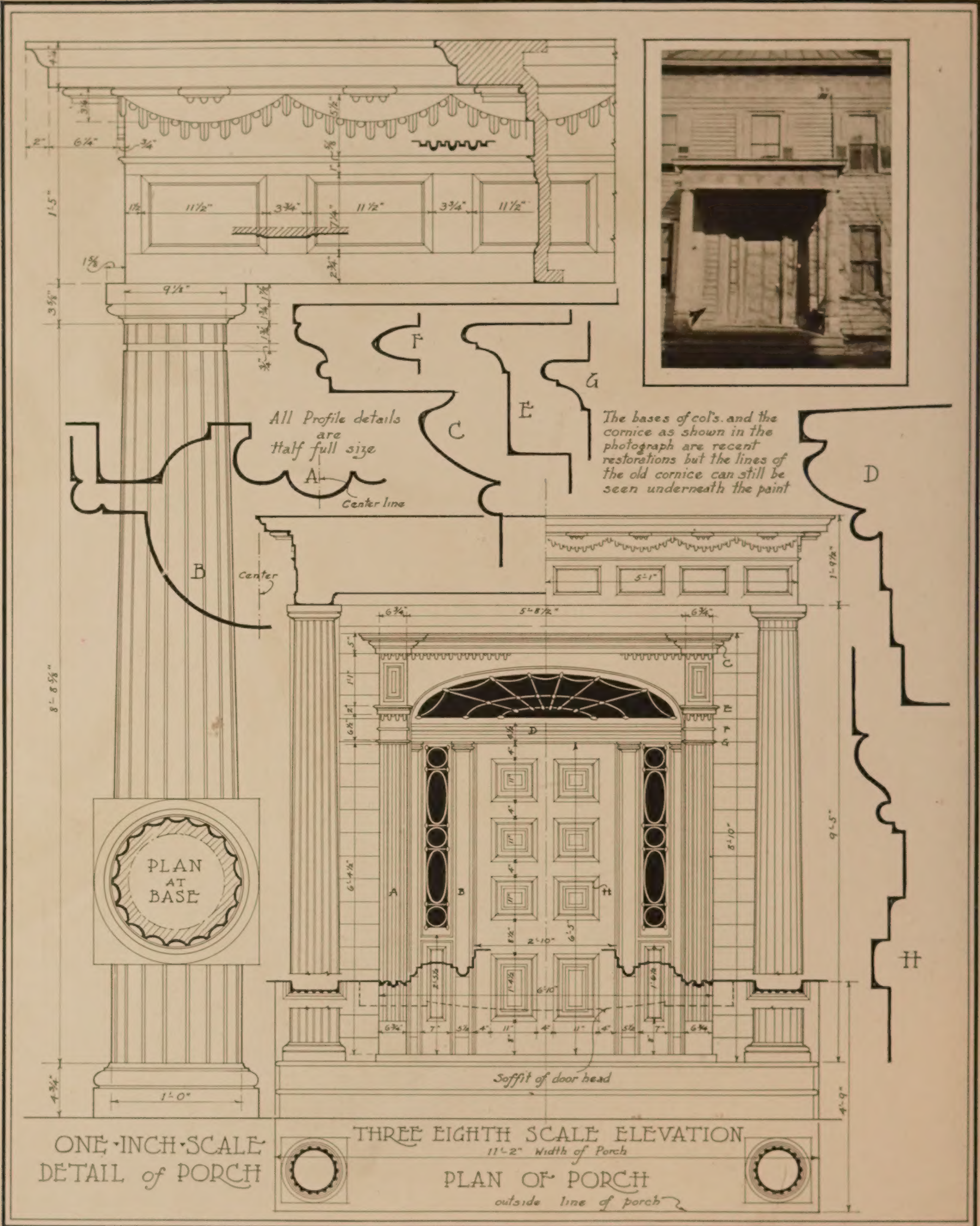
Measured & Drawn By
J. L. Kerster
O. J. Munson
J. A. Weber


HANDRAIL
CAP.
NEWEL POST
BALUSTER
NOSING
DROP
Center line
SECTION C-D.
HALF FULL SIZE SECTIONS
DETAIL of CORNICE at CEILING
Scale One Inch = One Foot
DETAIL of RAIL at LANDING
One Inch Scale
PLAN thro. A-B.
Wood
ELEVATION of STAIRS at FIRST FLOOR
Scale One Inch = One Foot

EARLY ARCHITECTVRE
OF
NEW JERSEY

· STAIRWAY · IN ·
COVRT HOVSE AT MT. HOLLY, N.J.
BVILT IN 1796

MEASVRED and DRAWN
BY
Albert E. Micklewright


All Profile details are Half full size
A
Center line
B
Center
C
D
E
F
G
H
The bases of col's. and the cornice as shown in the photograph are recent restorations but the lines of the old cornice can still be seen underneath the paint
PLAN AT BASE
1'-0"
8'-8 5/8"
1'-5"
11 1/2"
3 3/4"
9 1/8"
5'-1"
5'-8 1/2"
6 3/4"
2'-10"
6'-10"
8'-10"
9'-5"
4'-9"
Soffit of door head
ONE-INCH-SCALE DETAIL of PORCH
THREE EIGHTH SCALE ELEVATION
11'-2" Width of Porch
PLAN OF PORCH
outside line of porch

EARLY ARCHITECTURE OF NEW JERSEY

DOORWAY AND PORCH, HANKINS HOUSE, BORDENTOWN, N.J.

BUILT ABOUT 1800

MEASURED & DRAWN BY Albert E. Michlewright